

## Supplementary files for

### **Herb–target virtual screening and network pharmacology for prediction of molecular mechanism of Danggui Beimu Kushen Wan for prostate cancer**

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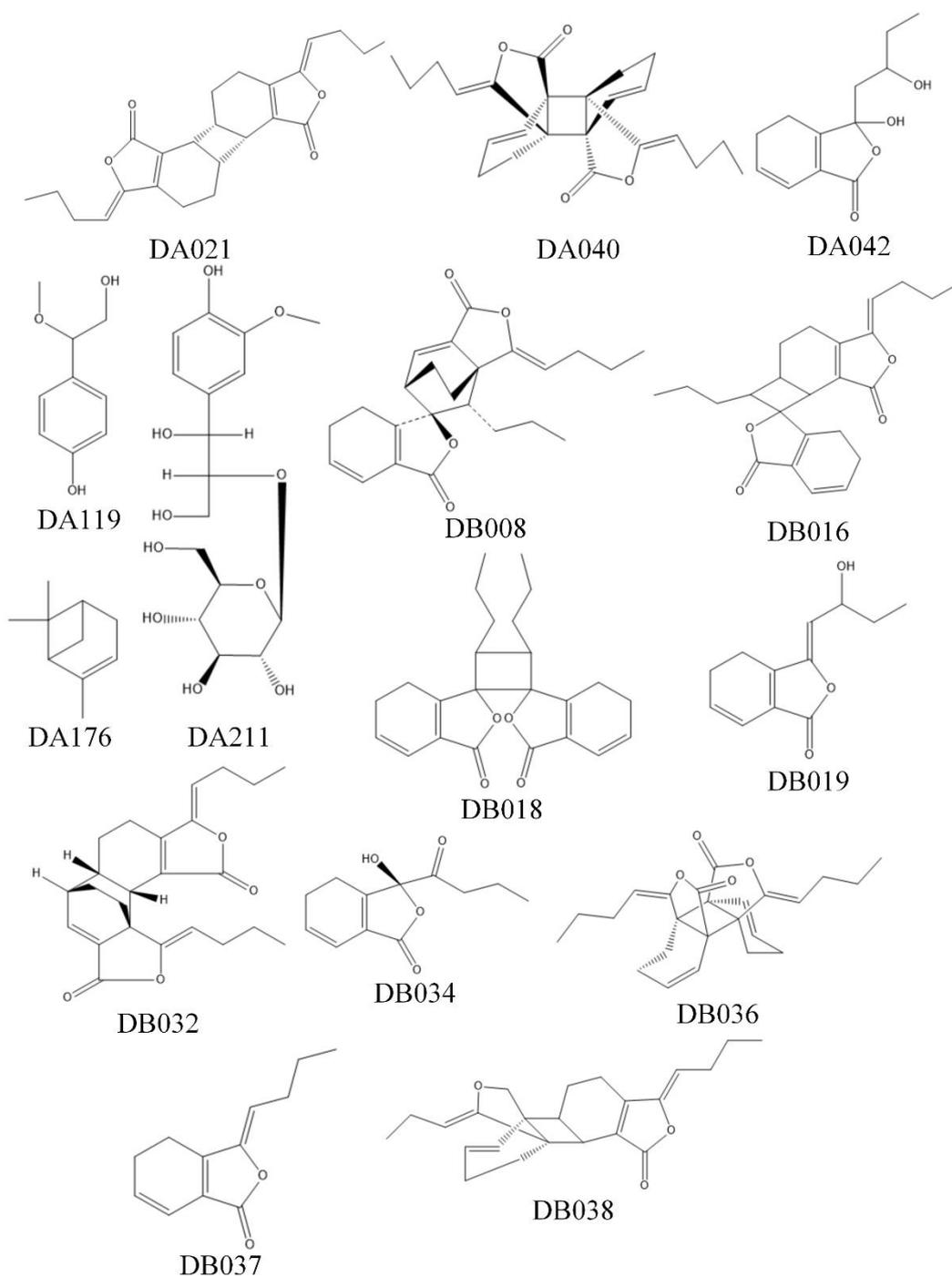
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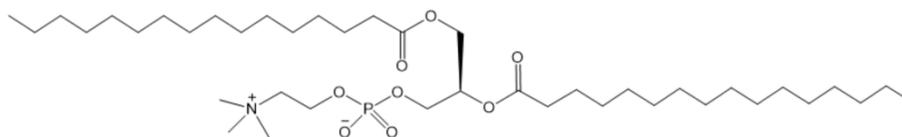
## Table of Contents

|   |    |
|---|----|
| Supplementary Figures .....   | 3  |
| Supplementary Figure S1. Molecular structures of 18 compounds that could not be found in PubChem from <i>Angelicae Sinensis Radix</i> .....   | 3  |
| Supplementary Figure S2. Molecular structures of 15 compounds of <i>Fritillariae Thunbergii Bulbus</i> that could not be found in PubChem. ....   | 5  |
| Supplementary Figure S3. Molecular Structures of 94 Compounds that could not be found in PubChem from <i>Sophorae Flavescentis Radix</i> . ....   | 6  |
| Supplementary Figure S4. Venn diagram summary of chemical compounds identified from Danggui Beimu Kushen Wan. ....  | 13 |
| Supplementary Figure S5. Flow chart of selection process for chemical compounds from Danggui Beimu Kushen Wan for molecular docking.....  | 14 |
| Supplementary Figure S6. Ligand–target interactions for compounds forming hydrogen bonds with one catalytic triad residue.....  | 15 |
| Supplementary Tables.....   | 22 |
| Supplementary Table S1. Summary of herbal compounds identified from Danggui Beimu Kushen Wan’s ingredients. ....  | 22 |
| Supplementary Table S2. Details of identified anti-cancer drugs from 2019 National Comprehensive Cancer Network Clinical Practice Guideline-Prostate Cancer and their drug targets..... | 60 |
| Supplementary Table S3. Summary of Kyoto Encyclopedia of Genes and Genomes enrichment of the included targets. ....   | 61 |
| Supplementary Table S4. Details of docking results between 621 natural compounds from Danggui Beimu Kushen Wan and 21 targets for prostate cancer (kcal/mol). ....                      | 65 |
| References.....   | 87 |

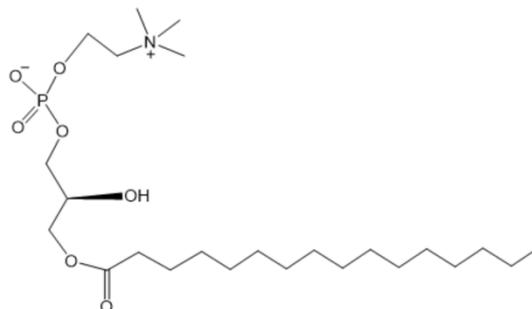
## Supplementary Figures

**Supplementary Figure S1. Molecular structures of 18 compounds that could not be found in PubChem from *Angelicae Sinensis Radix*.**

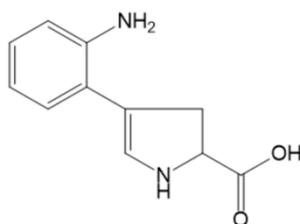




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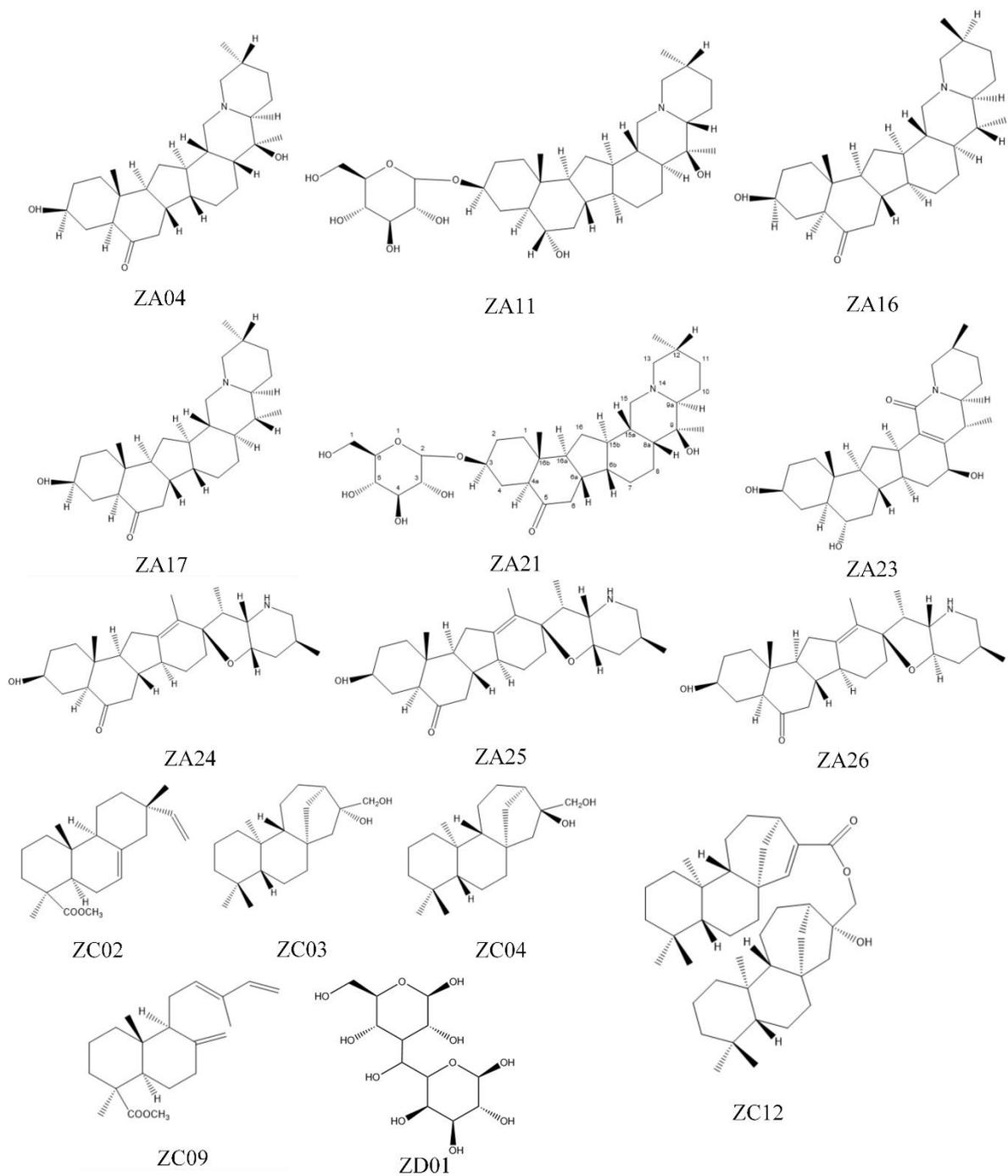


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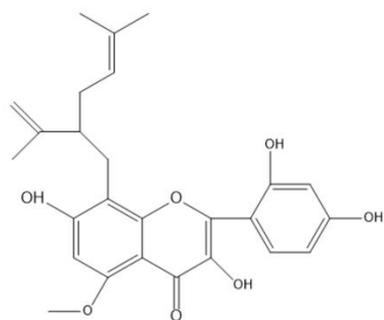


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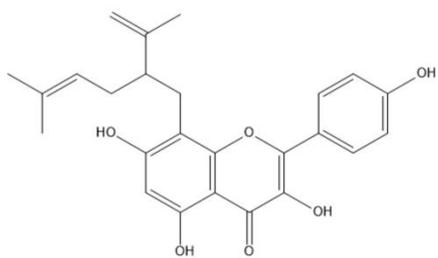
**Supplementary Figure S2. Molecular structures of 15 compounds of *Fritillariae* *Thunbergii* Bulbus that could not be found in PubChem.**



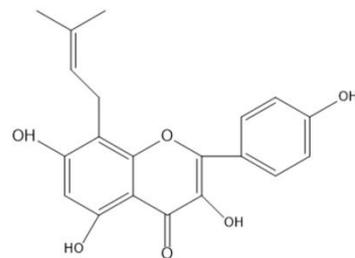
**Supplementary Figure S3. Molecular Structures of 94 Compounds that could not be found in PubChem from Sophorae Flavescents Radix.**



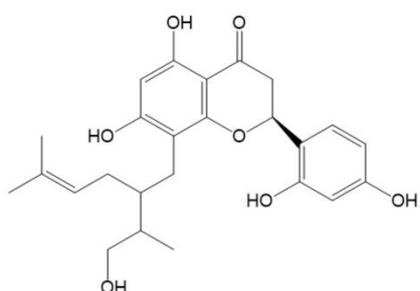
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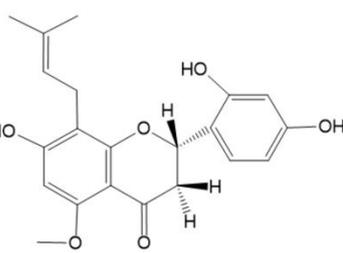
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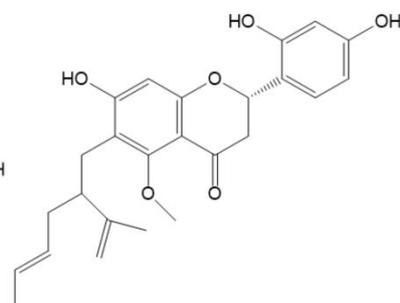
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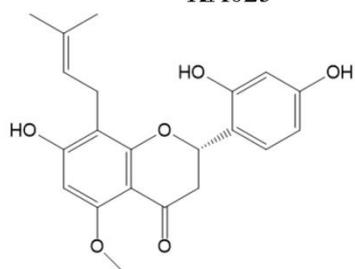
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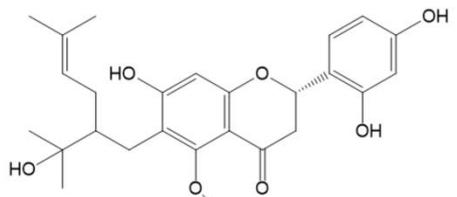
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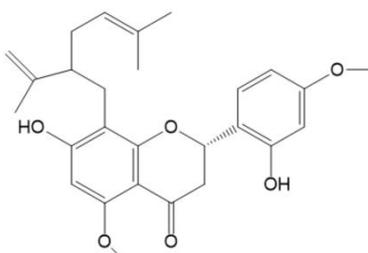
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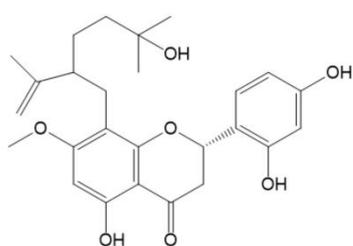
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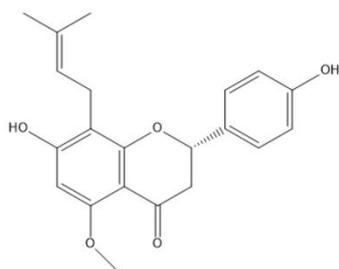
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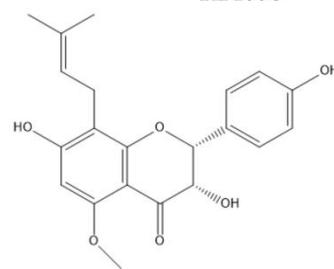
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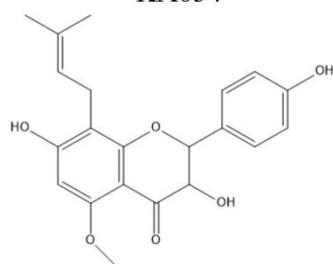
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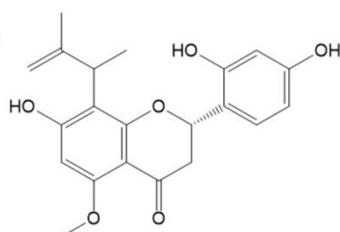
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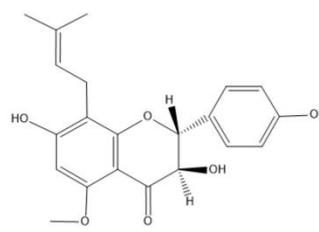
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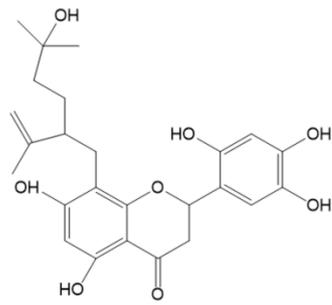
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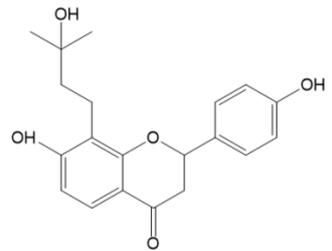
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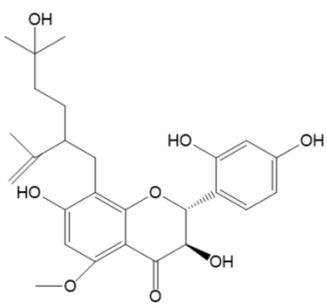
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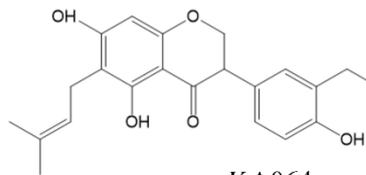
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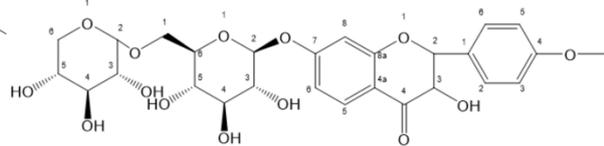
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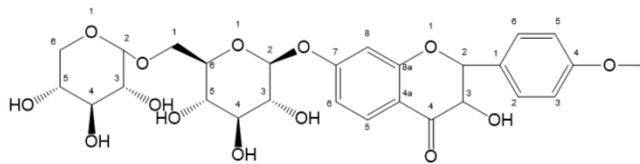
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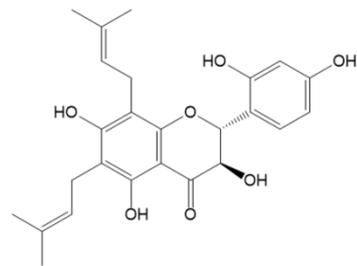
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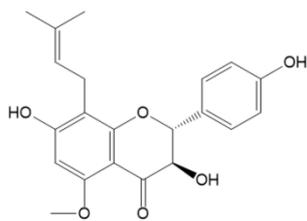
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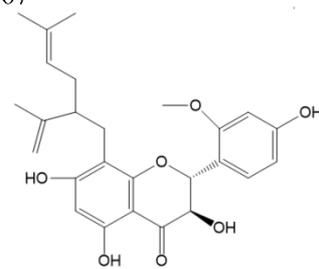
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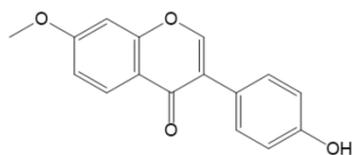
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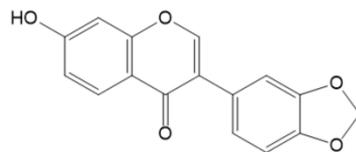
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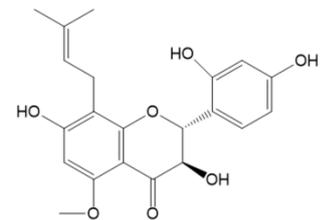
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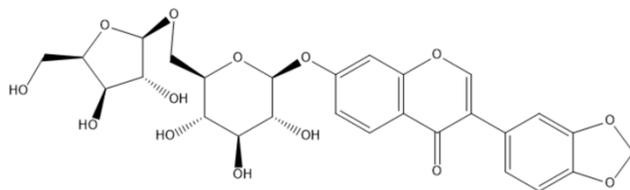
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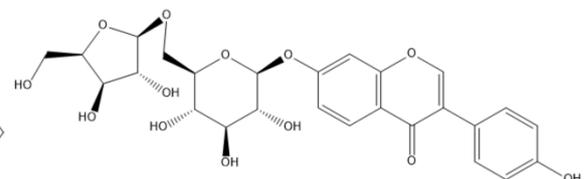
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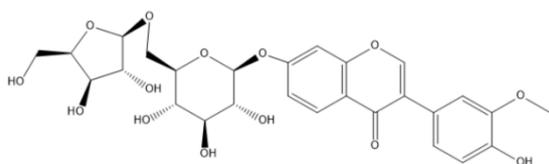
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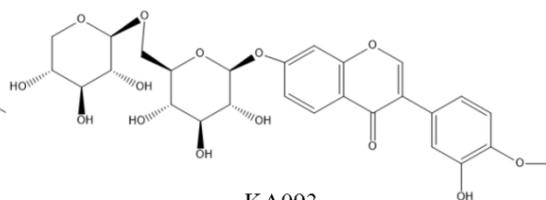
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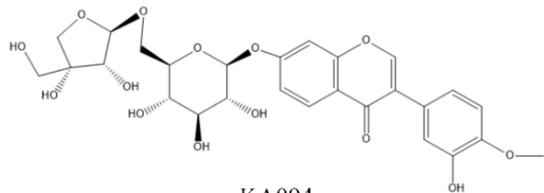
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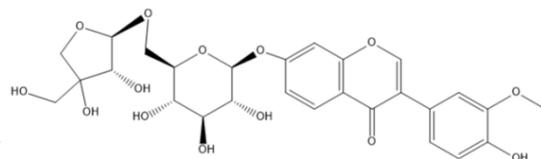
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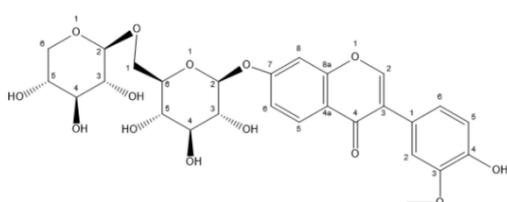
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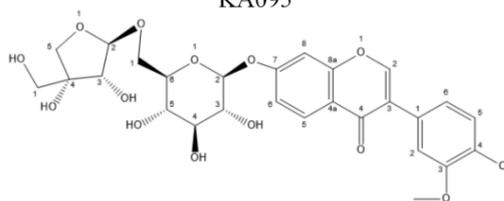
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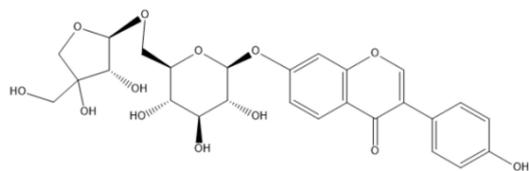
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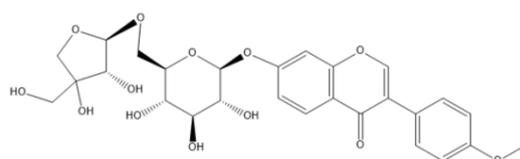
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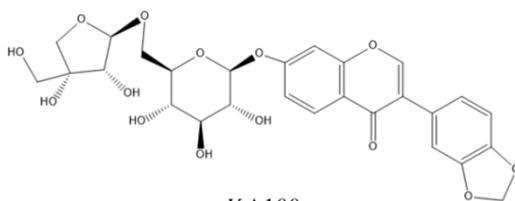
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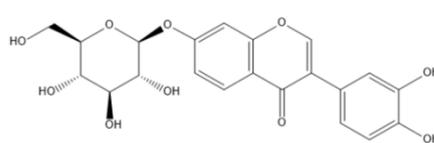
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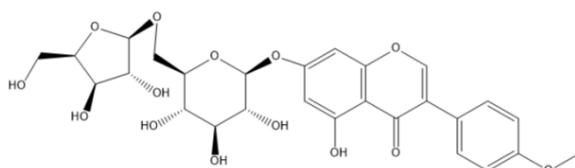
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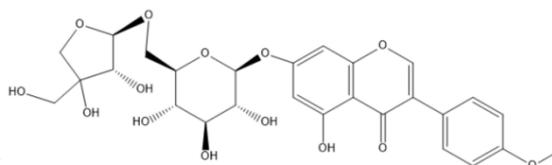
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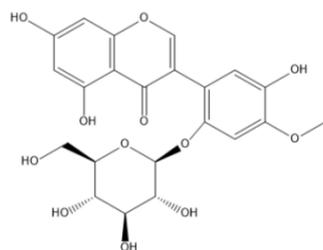
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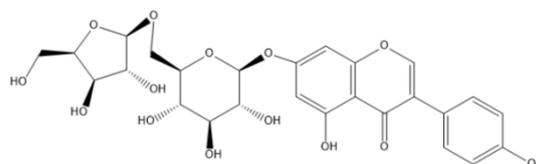
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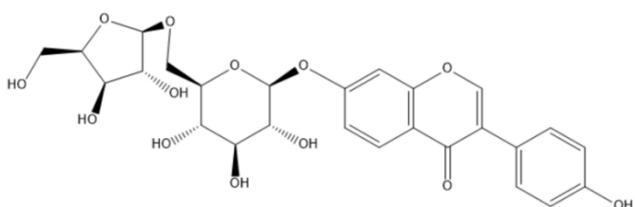
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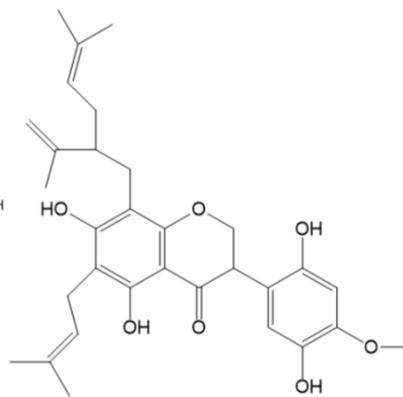
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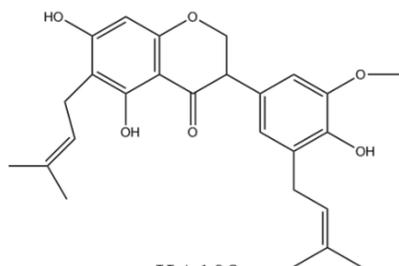
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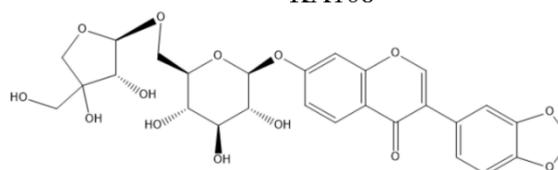
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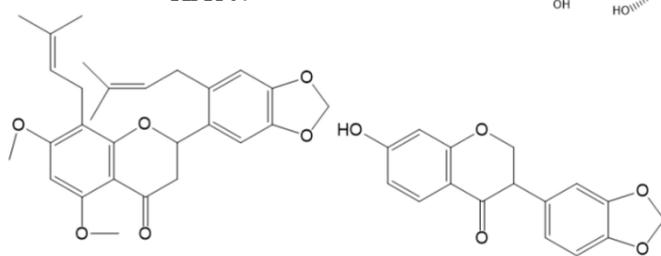
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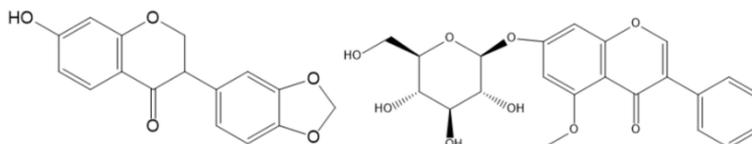
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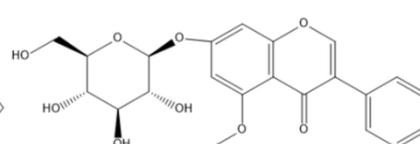
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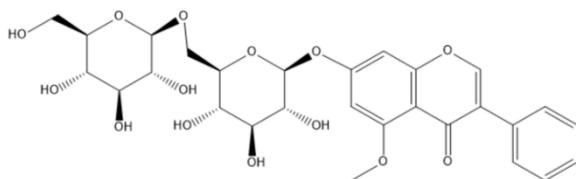
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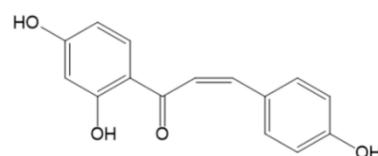
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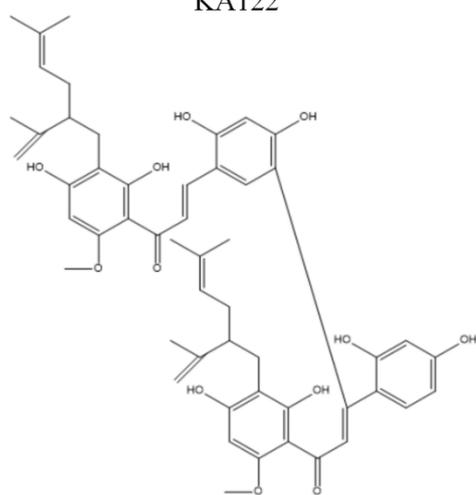
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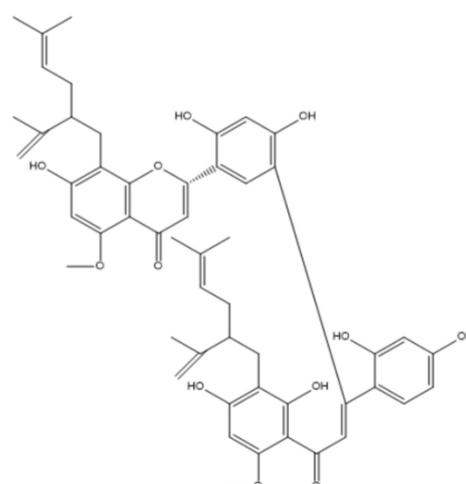
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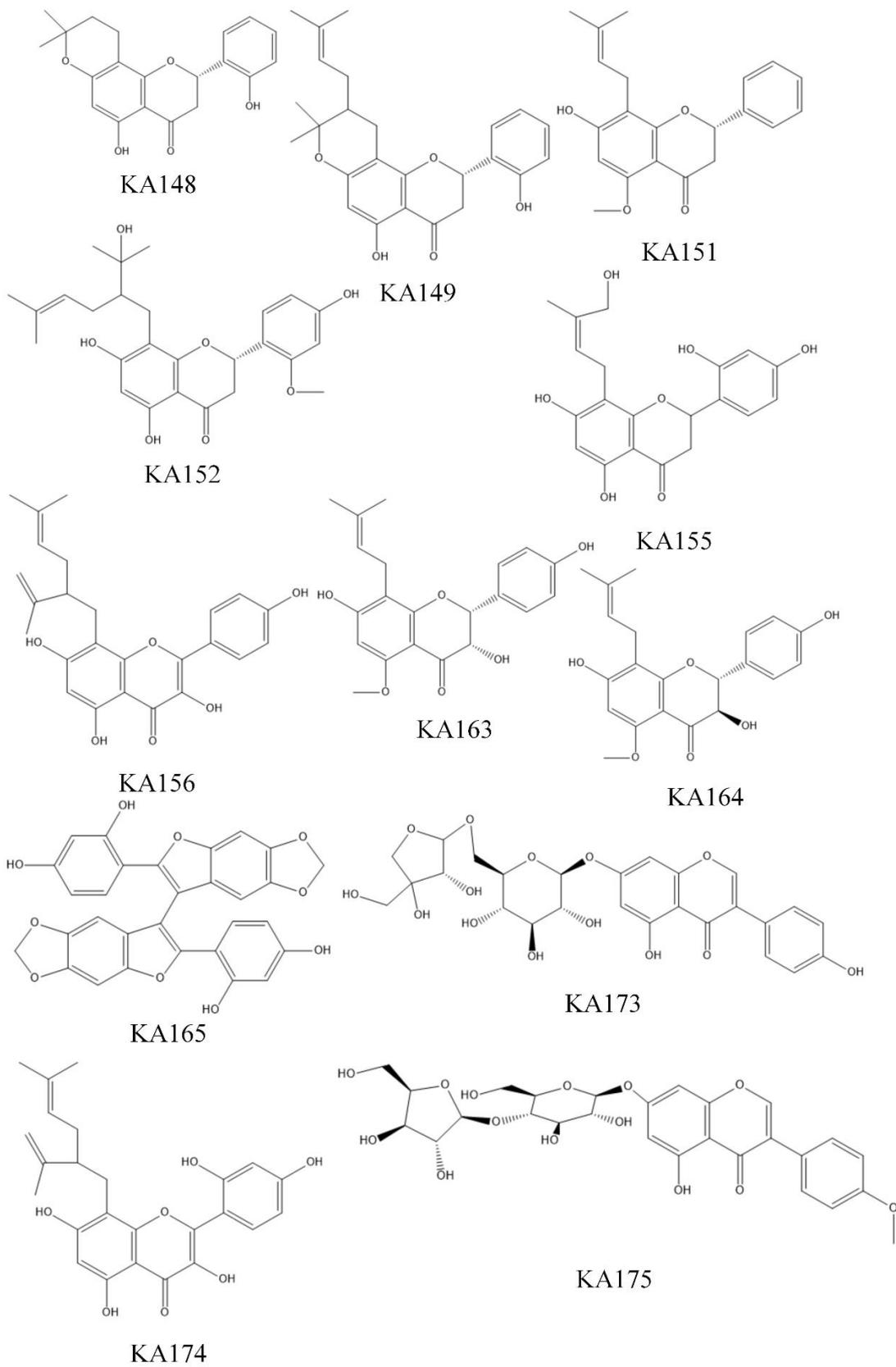
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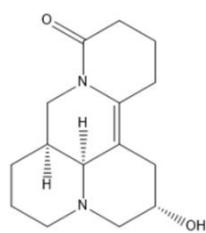


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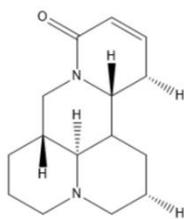


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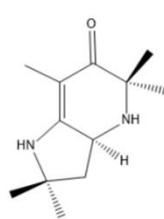




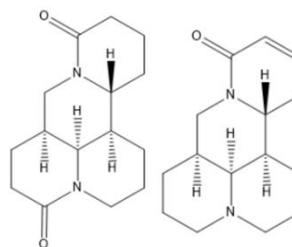
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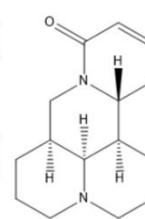
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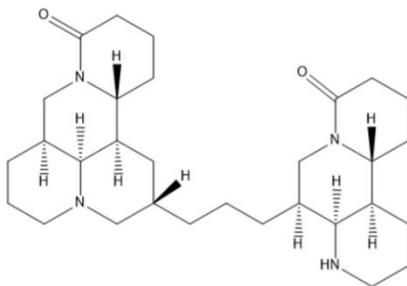
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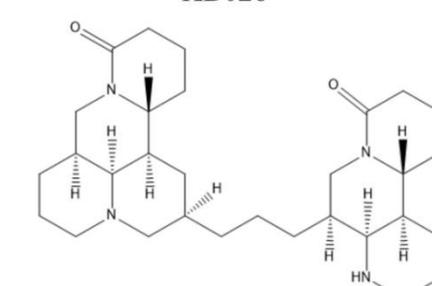
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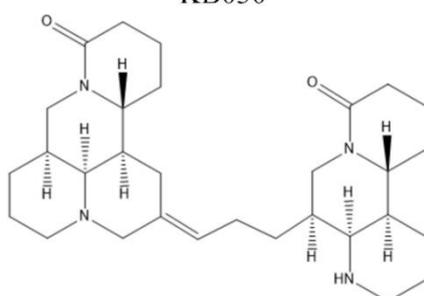
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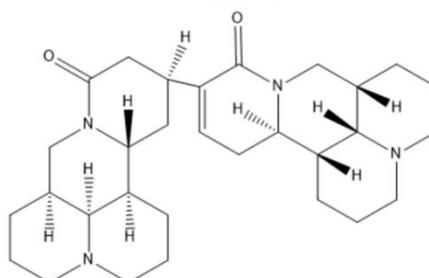
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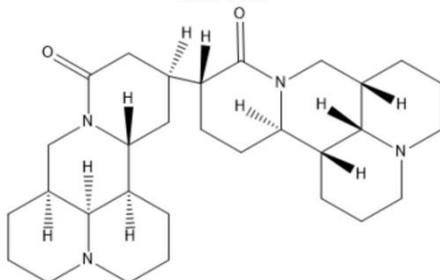
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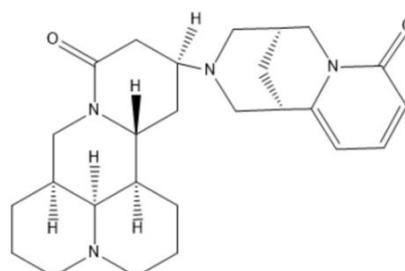
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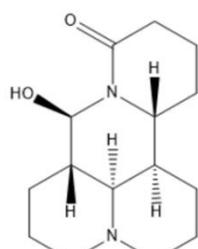
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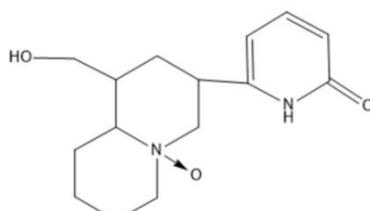
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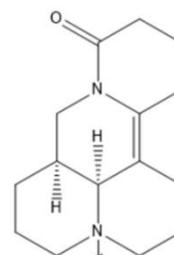
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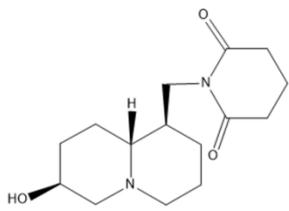
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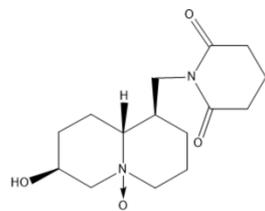
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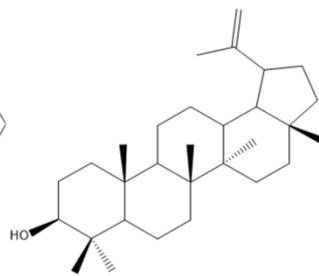
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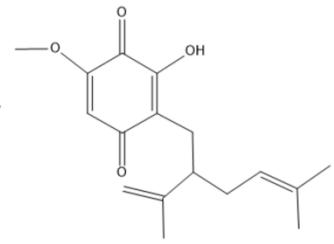
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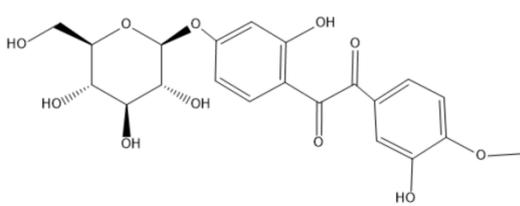
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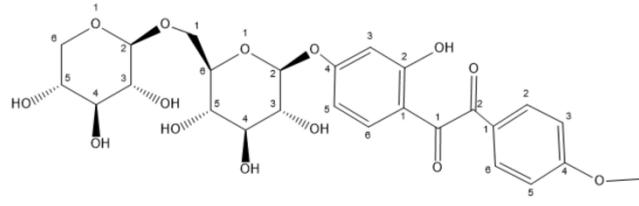
KC003



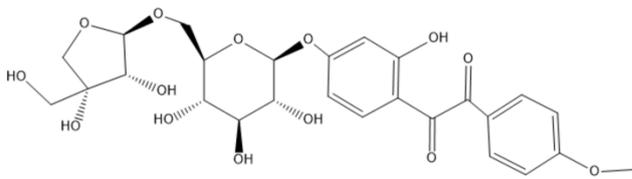
KJ001



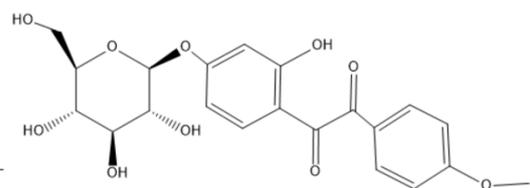
KE003



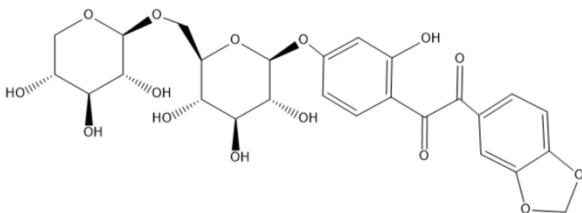
KE004



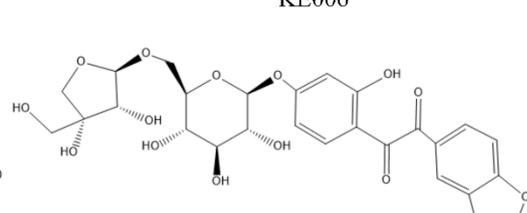
KE005



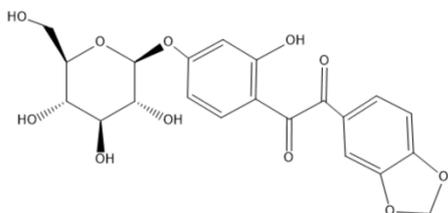
KE006



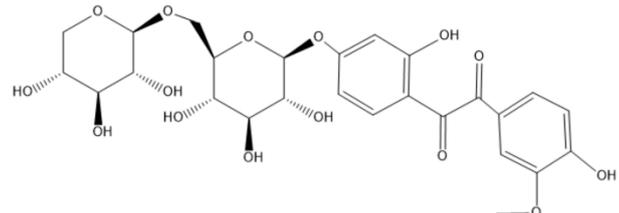
KE007



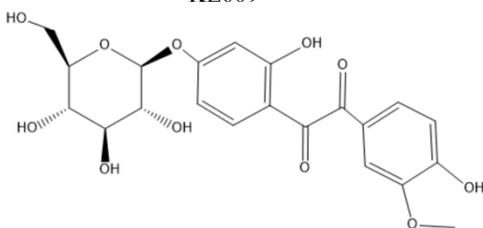
KE008



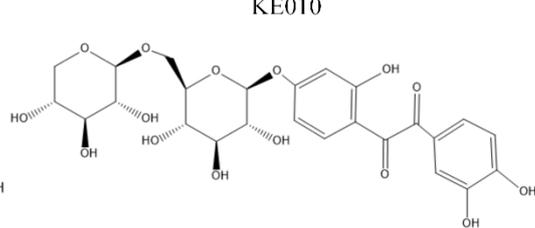
KE009



KE010

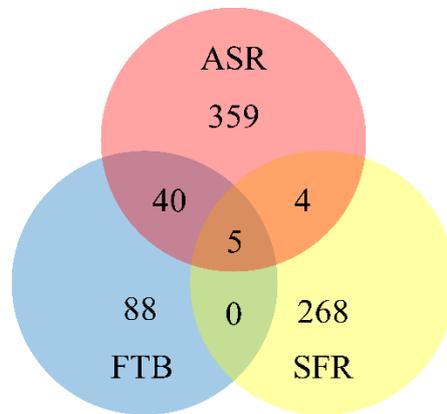


KE011



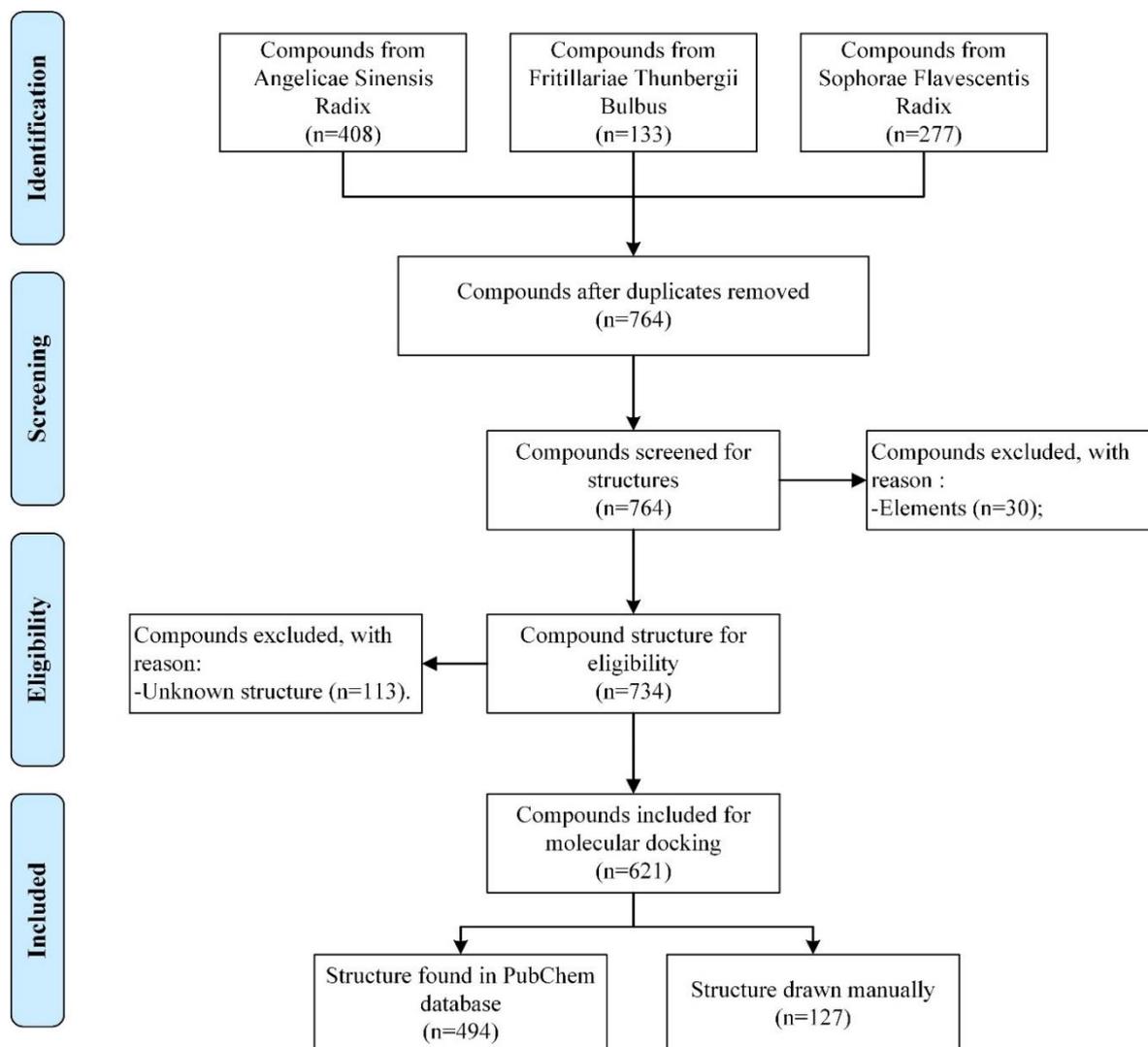
KE012

**Supplementary Figure S4. Venn diagram summary of chemical compounds identified from Danggui Beimu Kushen Wan.**

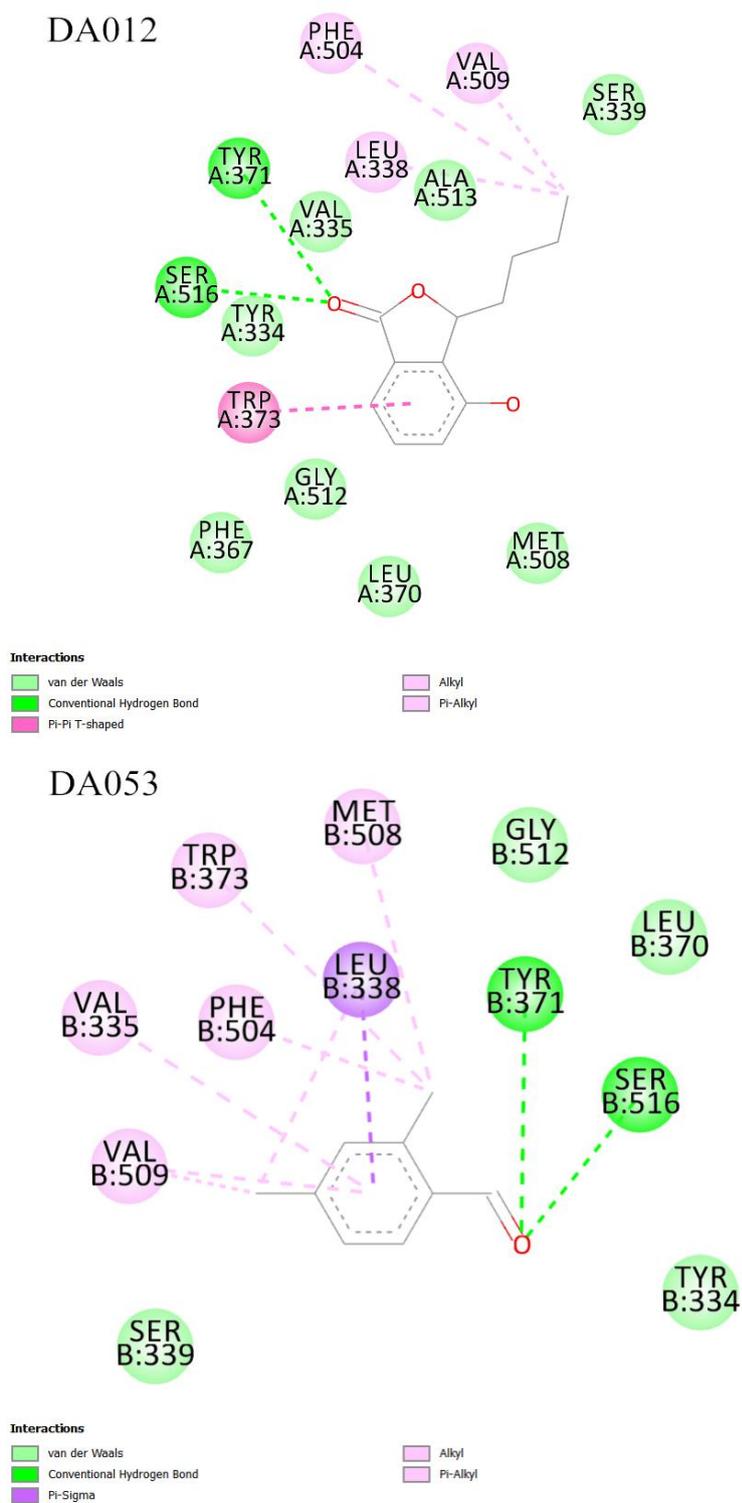


Note: ASR: *Angelicae Sinensis Radix*; FTB: *Fritillariae Thunbergii Bulbus*; SFR: *Sophorae Flavescentis Radix*.

**Supplementary Figure S5. Flow chart of selection process for chemical compounds from Danggui Beimu Kushen Wan for molecular docking.**

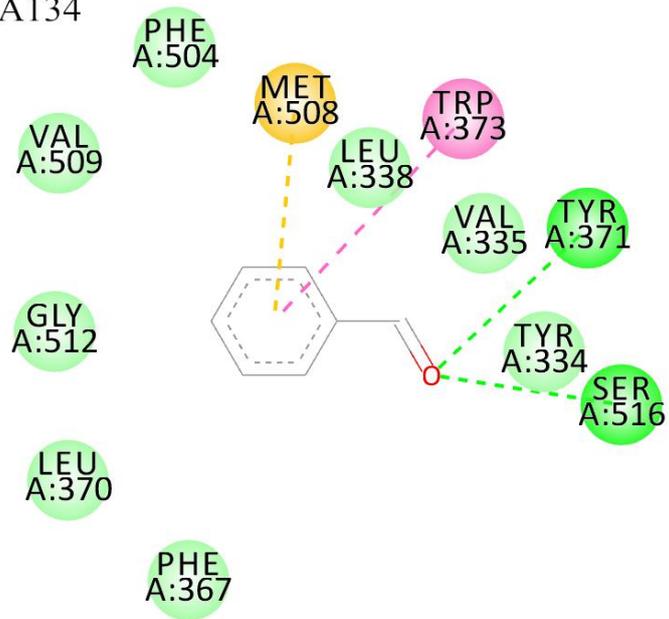


**Supplementary Figure S6. Ligand–target interactions for compounds forming hydrogen bonds with one catalytic triad residue.**



Note: DA012: 4-Hydroxy-3-butylphthalide; DA053: 2,4-Dimethylbenzaldehyde.

DA134

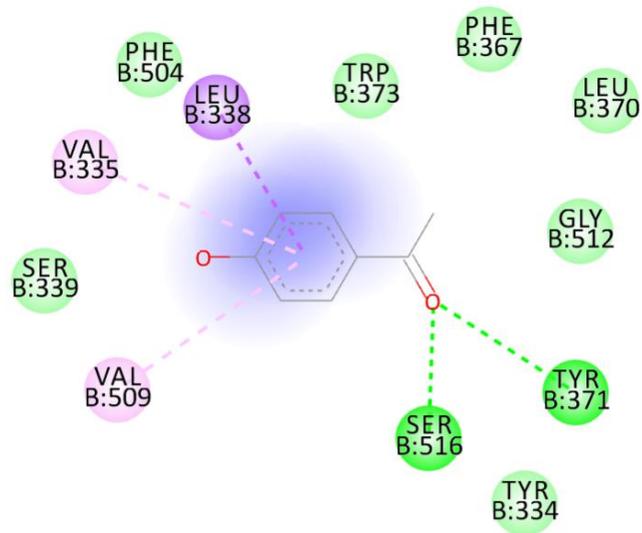


**Interactions**

van der Waals  
Conventional Hydrogen Bond

Pi-Sulfur  
Pi-Pi T-shaped

DA216



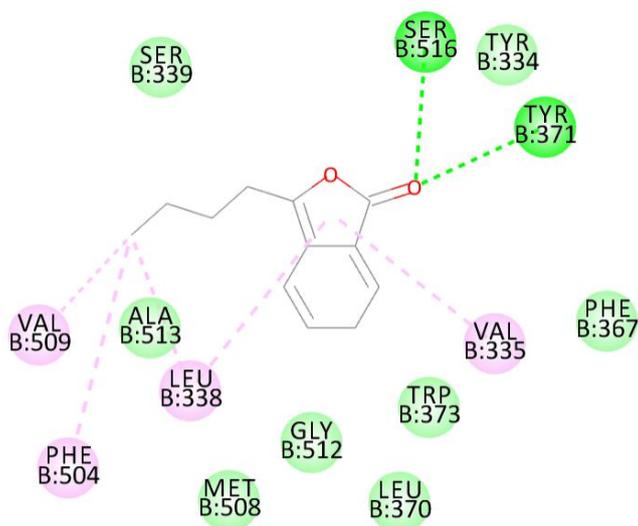
**Interactions**

van der Waals  
Conventional Hydrogen Bond

Pi-Sigma  
Pi-Alkyl

Note: DA134: Benzaldehyde; DA216: P-hydroxyacetophenone.

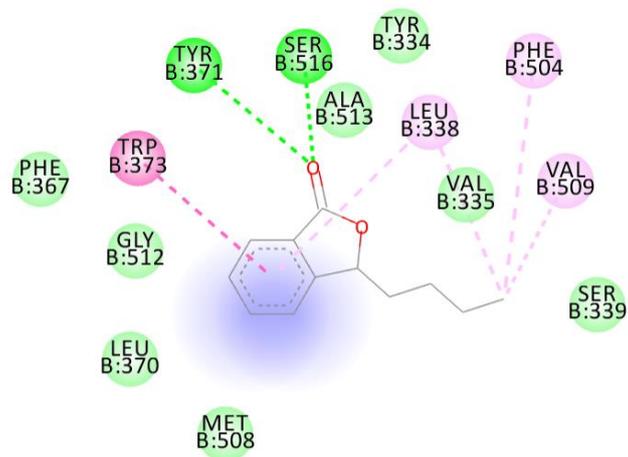
DB004



**Interactions**

- van der Waals
- Conventional Hydrogen Bond
- Alkyl
- PI-Alkyl

DB005

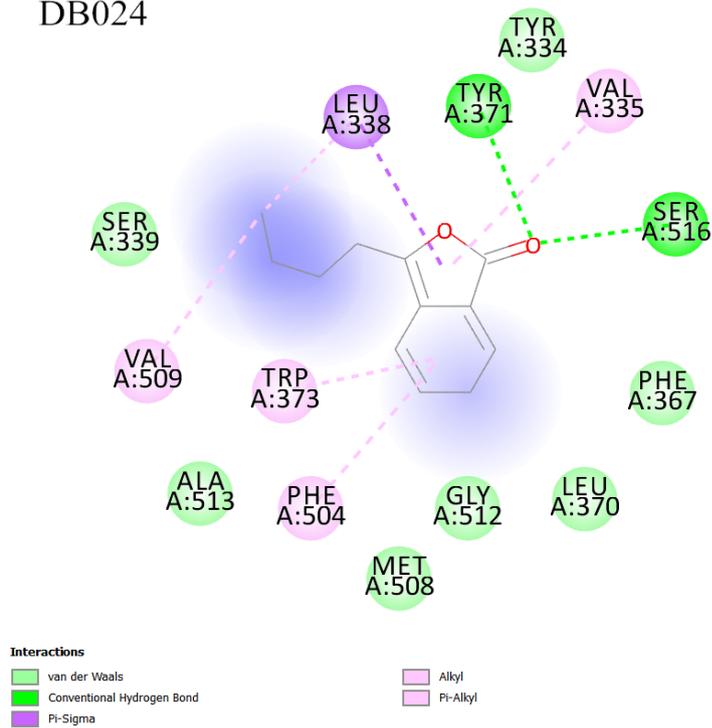


**Interactions**

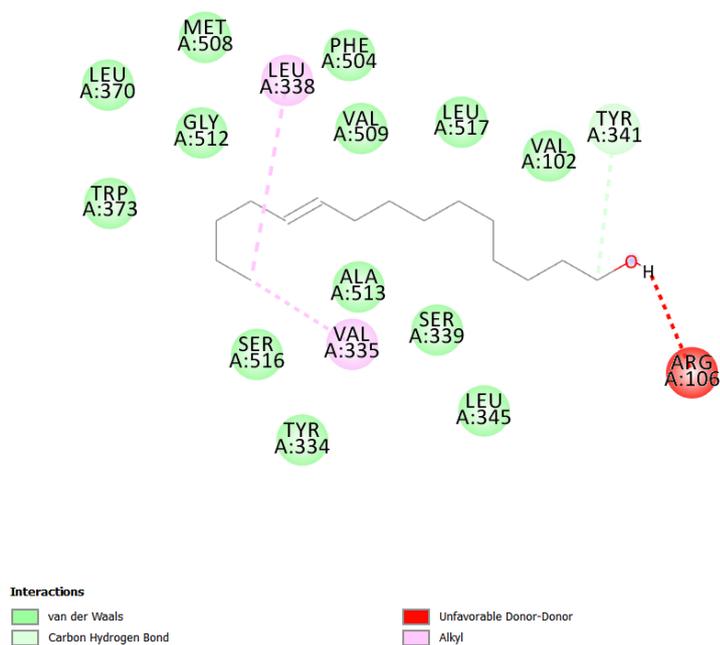
- van der Waals
- Conventional Hydrogen Bond
- PI-PI T-shaped
- Alkyl
- PI-Alkyl

Note: DB004: E-butylidene-phthalide; DB005: Butylphthalide.

DB024

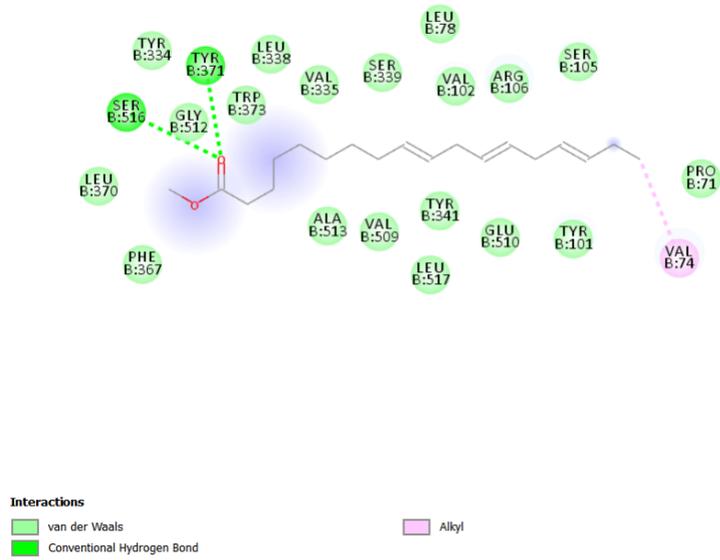


DA145

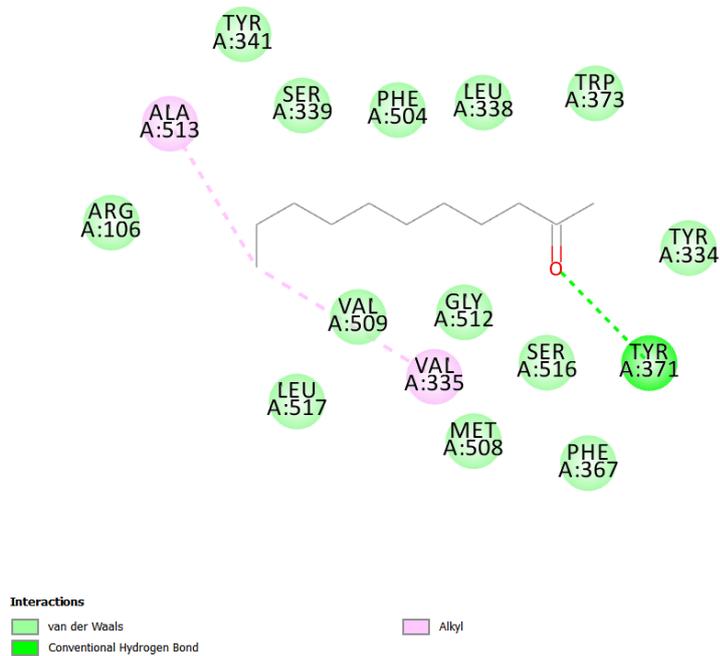


Note: DA145: E-10-pentadecenol; DB024: 3-Butylidenephthalide.

## DA153

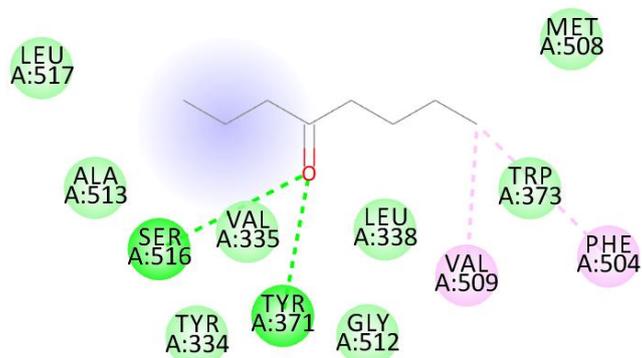


## DA165



Note: DA153: Methyl linolenate; DA165: 2-Undecanone.

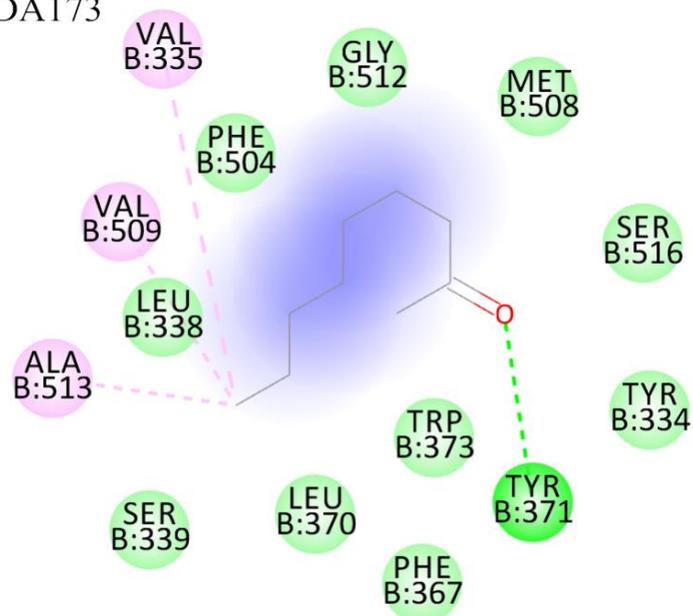
## DA172



### Interactions

- van der Waals
- Conventional Hydrogen Bond
- Alkyl
- Pi-Alkyl

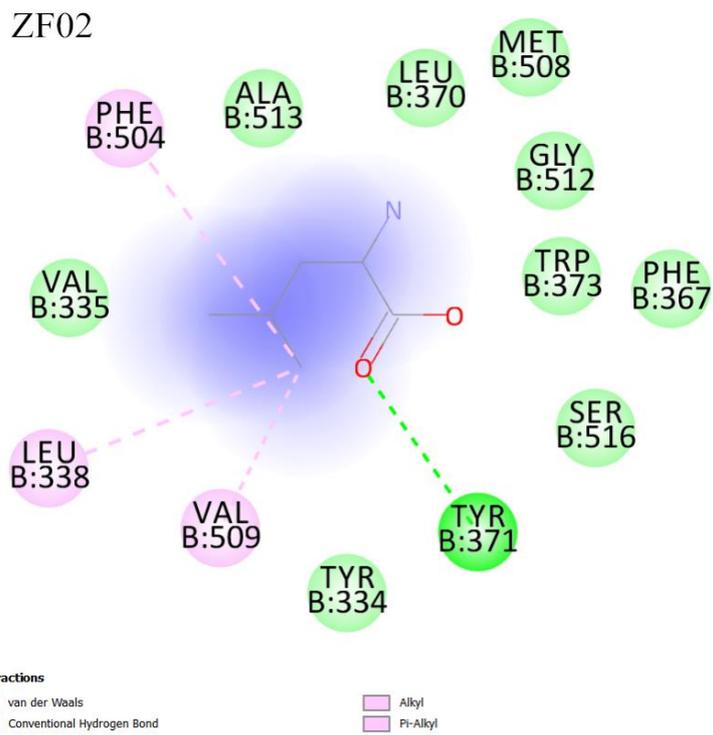
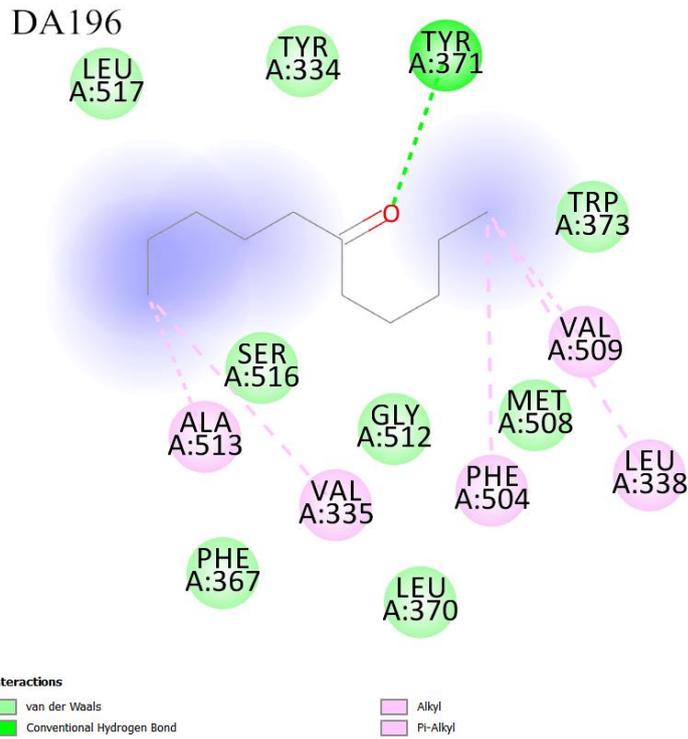
## DA173



### Interactions

- van der Waals
- Conventional Hydrogen Bond
- Alkyl

Note: DA172: 4-Octanone; DA173: 2-Nonanone.



Note: DA196: 6-Undecanone; ZF02: Leucine.

## Supplementary Tables

**Supplementary Table S1. Summary of herbal compounds identified from Danggui Beimu KushenWan's ingredients.**

| No.                                | Derivatives and Constituents                 | Molecular Formula                              | PubChem CID/SID | Molecule Weight (g/mol) | References  |
|------------------------------------|--|--|-----------------|-------------------------|---|
| <b>1. Angelicae Sinensis Radix</b> |  |  |                 |                         |   |
| <b>DA</b>                          | <b>Compounds from essential oils (n=216)</b> |  |                 |                         |   |
| DA001                              | Coniferyl ferulate                           | C <sub>20</sub> H <sub>20</sub> O <sub>6</sub> | 6441913         | 356.4                   | (Li et al., 2017; Ma et al., 2017; Y. Wang et al., 2016; Wei et al., 2016)  |
| DA002                              | (E)-Coniferin                                | C <sub>16</sub> H <sub>22</sub> O <sub>8</sub> | 3496897         | 342.34                  | (Wei et al., 2016)  |
| DA003                              | Guaiacylglycerol                             | C <sub>10</sub> H <sub>14</sub> O <sub>5</sub> | 14579           | 214.21                  | (Wei et al., 2016)  |
| DA004                              | Butanal                                      | C <sub>4</sub> H <sub>8</sub> O                | 261             | 72.11                   | (Li et al., 2016; Pei et al., 2017; Wei et al., 2016)                       |
| DA005                              | 3,5-dimethylbenzaldehyde                     | C <sub>9</sub> H <sub>10</sub> O               | 34225           | 134.17                  | (X. Wang et al., 2018; Wei et al., 2016)                                    |
| DA006                              | Camphene                                     | C <sub>10</sub> H <sub>16</sub>                | 6616            | 136.23                  | (Li et al., 2016; Wei et al., 2016)   |
| DA007                              | α-cedrene                                    | C <sub>15</sub> H <sub>24</sub>                | 6431015         | 204.35                  | (Wei et al., 2016)  |
| DA008                              | α-terpinolene                                | C <sub>10</sub> H <sub>16</sub>                | 11463           | 136.23                  | (Wei et al., 2016)  |
| DA009                              | Octadecane                                   | C <sub>18</sub> H <sub>38</sub>                | 11635           | 254.5                   | (Wei et al., 2016)  |
| DA010                              | Guaiacol                                     | C <sub>7</sub> H <sub>8</sub> O <sub>2</sub>   | 460             | 124.14                  | (Wei et al., 2016)  |
| DA011                              | Isobutanal                                   | C <sub>4</sub> H <sub>8</sub> O                | 6561            | 72.11                   | (Wei et al., 2016)  |
| DA012                              | 4-Hydroxy-3-butylphthalide                   | C <sub>12</sub> H <sub>14</sub> O <sub>3</sub> | 275561394       | 206.24                  | (Wei et al., 2016)  |
| DA013                              | M-ethylphenol                                | C <sub>8</sub> H <sub>10</sub> O               | 12101           | 122.16                  | (Wei et al., 2016)  |
| DA014                              | 2-Methylbutanal                              | C <sub>5</sub> H <sub>10</sub> O               | 7284            | 86.13                   | (Wei et al., 2016)  |
| DA015                              | 3-Methylbutanal                              | C <sub>5</sub> H <sub>10</sub> O               | 11552           | 86.13                   | (Wei et al., 2016)  |
| DA016                              | O-cresol                                     | C <sub>7</sub> H <sub>8</sub> O                | 335             | 108.14                  | (Wei et al., 2016)  |
| DA017                              | β-Ocimene                                    | C <sub>10</sub> H <sub>16</sub>                | 5281553         | 136.23                  | (Li et al., 2016; Liu et al., 2016; X. Wang et al., 2018; Wei et al., 2016) |

| No.   | Derivatives and Constituents   | Molecular Formula                                | PubChem CID/SID | Molecule Weight (g/mol) | References   |
|-------|--------------------------------|--|-----------------|-------------------------|--|
| DA018 | Tridecane                      | C <sub>13</sub> H <sub>28</sub>                  | 12388           | 184.36                  | (X. Wang et al., 2018; Wei et al., 2016)   |
| DA019 | Decanal                        | C <sub>10</sub> H <sub>20</sub> O                | 8175            | 156.26                  | (Li et al., 2016; Pei et al., 2017; Wei et al., 2016)                                |
| DA020 | 1,3,5-Undecatriene             | C <sub>11</sub> H <sub>18</sub>                  | 5367412         | 150.26                  | (Wei et al., 2016)   |
| DA021 | 3,3'-Z-6.7',7.6'-Diligustilide | C <sub>24</sub> H <sub>28</sub> O <sub>4</sub>   | NR #            | 380.48                  | (Wei et al., 2016)   |
| DA022 | 1-Acetyl-β-carboline           | C <sub>13</sub> H <sub>10</sub> N <sub>2</sub> O | 638667          | 210.23                  | (Wei et al., 2016)   |
| DA023 | Bergamiol                      | C <sub>12</sub> H <sub>20</sub> O <sub>2</sub>   | 8294            | 196.29                  | (Wei et al., 2016)   |
| DA024 | 5-Methylfurfural               | C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>     | 12097           | 110.11                  | (Wei et al., 2016)   |
| DA025 | D-Limonene                     | C <sub>10</sub> H <sub>16</sub>                  | 440917          | 136.23                  | (Pei et al., 2017; Wei et al., 2016)   |
| DA026 | α-Phellandrene                 | C <sub>10</sub> H <sub>16</sub>                  | 7460            | 136.23                  | (Wei et al., 2016)   |
| DA027 | Spinasterol                    | C <sub>29</sub> H <sub>48</sub> O                | 5281331         | 412.7                   | (Wei et al., 2016; Wu et al., 2016; Xu, 2016; Zhu, 2018)                             |
| DA028 | Magnolol                       | C <sub>18</sub> H <sub>18</sub> O <sub>2</sub>   | 72300           | 266.3                   | (Wei et al., 2016; Xu, 2016)   |
| DA029 | Baicalin                       | C <sub>21</sub> H <sub>18</sub> O <sub>11</sub>  | 64982           | 446.4                   | (Wei et al., 2016; Wu et al., 2016; Xu, 2016)  |
| DA030 | Octanal                        | C <sub>8</sub> H <sub>16</sub> O                 | 454             | 128.21                  | (Li et al., 2016; Pei et al., 2017; X. Wang et al., 2018; Wei et al., 2016)          |
| DA031 | δ-Guaiene                      | C <sub>15</sub> H <sub>24</sub>                  | 94275           | 204.35                  | (Li et al., 2016; X. Wang et al., 2018; Wei et al., 2016; Wu et al., 2016; Xu, 2016) |
| DA032 | 6-Undecanol                    | C <sub>11</sub> H <sub>24</sub> O                | 32045           | 172.31                  | (X. Wang et al., 2018; Wei et al., 2016)   |
| DA033 | Aromadendrene                  | C <sub>15</sub> H <sub>24</sub>                  | 91354           | 204.35                  | (Li et al., 2016; Wei et al., 2016)  |
| DA034 | 1,10-Didenhydroaristolane      | C <sub>15</sub> H <sub>24</sub>                  | NR              | 204.35                  | (Wei et al., 2016)   |
| DA035 | Spathulenol                    | C <sub>15</sub> H <sub>24</sub> O                | 92231           | 220.35                  | (Li et al., 2016; X. Wang et al., 2018; Wei et al., 2016; M. Zhao et al., 2018)      |

| No.   | Derivatives and Constituents                                 | Molecular Formula                              | PubChem CID/SID | Molecule Weight (g/mol) | References  |
|-------|--|--|-----------------|-------------------------|---|
| DA036 | Caryophyllene  | C <sub>15</sub> H <sub>24</sub>                | 5281515         | 204.35                  | (Wei et al., 2016)  |
| DA037 | β-Eudesmol   | C <sub>15</sub> H <sub>26</sub> O              | 91457           | 222.37                  | (Wei et al., 2016)  |
| DA038 | γ-Muurolene  | C <sub>15</sub> H <sub>24</sub>                | 12313020        | 204.35                  | (Wei et al., 2016)  |
| DA039 | α-Pinene   | C <sub>10</sub> H <sub>16</sub>                | 6654            | 136.23                  | (Li et al., 2016; Liu et al., 2016; Pei et al., 2017; Wei et al., 2016)         |
| DA040 | Z, Z'-3.3'α,7α.7'α-Diligustilide                             | C <sub>24</sub> H <sub>28</sub> O <sub>4</sub> | NR #            | 380.48                  | (Wei et al., 2016)  |
| DA041 | Myrcene  | C <sub>10</sub> H <sub>16</sub>                | 31253           | 136.23                  | (Li et al., 2016; Pei et al., 2017; Wei et al., 2016)                           |
| DA042 | 3, 9-Dihydroxyligustilide                                    | C <sub>12</sub> H <sub>16</sub> O <sub>4</sub> | NR #            | 224.26                  | (Wei et al., 2016)  |
| DA043 | 10-Angeloylbutylphthalide                                    | C <sub>17</sub> H <sub>20</sub> O <sub>4</sub> | 11572826        | 288.34                  | (Wei et al., 2016)  |
| DA044 | Borneol  | C <sub>10</sub> H <sub>18</sub> O              | 1201518         | 154.25                  | (Wei et al., 2016)  |
| DA045 | Menthene-3-ol  | C <sub>10</sub> H <sub>18</sub> O              | NR              | 154.25                  | (Wei et al., 2016)  |
| DA046 | 2-Methoxy-4-vinylphenol                                      | C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>  | 332             | 150.17                  | (Li et al., 2016; Pei et al., 2017; X. Wang et al., 2018; Wei et al., 2016)     |
| DA047 | Copaene  | C <sub>15</sub> H <sub>24</sub>                | 19725           | 204.35                  | (Wei et al., 2016)  |
| DA048 | Octahydro-3,8,8-trimethyl-6-methylene-1H,3A,7-methanoazulene | NR   | NR              | NR                      | (Wei et al., 2016)  |
| DA049 | 2-santalene  | NR   | NR              | NR                      | (Wei et al., 2016)  |
| DA050 | β-chamigrene   | C <sub>15</sub> H <sub>24</sub>                | 442353          | 204.35                  | (Li et al., 2016; X. Wang et al., 2018; Wei et al., 2016; M. Zhao et al., 2018) |
| DA051 | 1,5,5-Trimethyl-6-methylene-cyclohexene                      | C <sub>10</sub> H <sub>16</sub>                | 578237          | 136.23                  | (Pei et al., 2017; X. Wang et al., 2018)  |
| DA052 | 2,4,5-trimethylbenzaldehyde                                  | C <sub>10</sub> H <sub>12</sub> O              | 22013           | 148.2                   | (Li et al., 2016; Pei et al., 2017; X. Wang et al., 2018)                       |
| DA053 | 2,4-dimethylbenzaldehyde                                     | C <sub>10</sub> H <sub>8</sub>                 | 61814           | 134.17                  | (Li et al., 2016; Pei et al., 2017)   |
| DA054 | (-)-alloaromadendrene  | C <sub>15</sub> H <sub>24</sub>                | 10899740        | 204.35                  | (Li et al., 2016; X. Wang et al., 2018)   |

| No.   | Derivatives and Constituents                | Molecular Formula                  | PubChem CID/SID | Molecule Weight (g/mol) | References  |
|-------|---|------------------------------------|-----------------|-------------------------|---|
| DA055 | (-)-Thujopsene                              | C <sub>15</sub> H <sub>24</sub>    | 442402          | 204.35                  | (Li et al., 2016; X. Wang et al., 2018; M. Zhao et al., 2018) |
| DA056 | α-Chamigrene                                | C <sub>15</sub> H <sub>24</sub>    | 442351          | 204.35                  | (Li et al., 2016)   |
| DA057 | Cuparene                                    | C <sub>15</sub> H <sub>22</sub>    | 86895           | 202.33                  | (Li et al., 2016; X. Wang et al., 2018; M. Zhao et al., 2018) |
| DA058 | β-Farnesene                                 | C <sub>15</sub> H <sub>24</sub>    | 5281517         | 204.35                  | (Li et al., 2016; Pei et al., 2017; X. Wang et al., 2018)     |
| DA059 | Allo-ocimene                                | C <sub>10</sub> H <sub>16</sub>    | 5368821         | 136.23                  | (Li et al., 2016; Pei et al., 2017; X. Wang et al., 2018)     |
| DA060 | Bicyclogermacrene                           | C <sub>15</sub> H <sub>24</sub>    | 13894537        | 204.35                  | (X. Wang et al., 2018)  |
| DA061 | Cis-α-bisabolene                            | C <sub>15</sub> H <sub>24</sub>    | 5352653         | 204.35                  | (X. Wang et al., 2018)  |
| DA062 | β-Bisabolene                                | C <sub>15</sub> H <sub>24</sub>    | 10104370        | 204.35                  | (Li et al., 2016; X. Wang et al., 2018)                       |
| DA063 | 4-Allyloxyimino-2-carene                    | C <sub>13</sub> H <sub>19</sub> NO | 9603708         | 205.3                   | (Liu et al., 2016)  |
| DA064 | β-Cedrene                                   | C <sub>15</sub> H <sub>24</sub>    | 11106485        | 204.35                  | (Li et al., 2016; Pei et al., 2017; X. Wang et al., 2018)     |
| DA065 | 6-Butyl-1,4-cycloheptadiene                 | C <sub>11</sub> H <sub>18</sub>    | 556470          | 136.23                  | (Li et al., 2016; Pei et al., 2017)                           |
| DA066 | 1,3,5,5-Tetramethyl-1,3-cyclohexadiene      | C <sub>10</sub> H <sub>16</sub>    | 78453           | 136.23                  | (Liu et al., 2016)  |
| DA067 | 1,5,5,6-Tetramethyl-1,3-cyclohexadiene      | C <sub>10</sub> H <sub>16</sub>    | 10581           | 136.23                  | (X. Wang et al., 2018; M. Zhao et al., 2018)                  |
| DA068 | 1,3-diisopropenyl-6-methyl-cyclohexene      | C <sub>13</sub> H <sub>20</sub>    | 577052          | 176.3                   | (Pei et al., 2017)  |
| DA069 | 4-Methyl-1-(prop-1-en-2-yl) cyclohexene     | NR                                 | NR              | NR                      | (Liu et al., 2016)  |
| DA070 | 4-Methyl-3-(1-methylethylidene)-cyclohexene | C <sub>10</sub> H <sub>16</sub>    | 564722          | 136.23                  | (Pei et al., 2017)  |
| DA071 | 1,2-Cyclooctadiene                          | C <sub>8</sub> H <sub>12</sub>     | 572661          | 108.18                  | (Liu et al., 2016)  |
| DA072 | 1-Decene                                    | C <sub>10</sub> H <sub>20</sub>    | 13381           | 140.27                  | (Pei et al., 2017; X. Wang et al., 2018)                      |
| DA073 | 5-Methyl-2-decene                           | C <sub>11</sub> H <sub>22</sub>    | 22171977        | 154.29                  | (Pei et al., 2017)  |
| DA074 | γ-Elemene                                   | C <sub>15</sub> H <sub>24</sub>    | 6432312         | 204.35                  | (Li et al., 2016; X. Wang et al., 2018)                       |
| DA075 | Elixene                                     | C <sub>15</sub> H <sub>24</sub>    | 275390917       | 204.35                  | (Li et al., 2016)   |
| DA076 | 1-Hexadecene                                | C <sub>16</sub> H <sub>32</sub>    | 12395           | 224.42                  | (Pei et al., 2017)  |

| No.   | Derivatives and Constituents                                  | Molecular Formula                               | PubChem CID/SID | Molecule Weight (g/mol) | References  |
|-------|---|---|-----------------|-------------------------|---|
| DA077 | 5-Methyl-3-(1-methylethylidene)-1, 4-hexadiene                | C <sub>10</sub> H <sub>16</sub>                 | 578220          | 136.23                  | (Pei et al., 2017)  |
| DA078 | β-Himachalene   | C <sub>15</sub> H <sub>24</sub>                 | 15095           | 204.35                  | (Li et al., 2016; Pei et al., 2017; X. Wang et al., 2018; M. Zhao et al., 2018) |
| DA079 | α-Himachalene   | C <sub>15</sub> H <sub>24</sub>                 | 11830551        | 204.35                  | (Li et al., 2016)   |
| DA080 | Ledene  | C <sub>15</sub> H <sub>24</sub>                 | 10910653        | 204.35                  | (Li et al., 2016; Pei et al., 2017)   |
| DA081 | Leucine   | C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub>  | 6106            | 131.17                  | (Li et al., 2017; S. Zhu et al., 2017)  |
| DA082 | Limonene  | C <sub>10</sub> H <sub>16</sub>                 | 22311           | 136.23                  | (Li et al., 2016; X. Wang et al., 2018)   |
| DA083 | D-longifolene   | C <sub>15</sub> H <sub>24</sub>                 | 1796220         | 204.35                  | (M. Zhao et al., 2018)  |
| DA084 | Isolongifolene  | C <sub>15</sub> H <sub>24</sub>                 | 11127402        | 204.35                  | (Li et al., 2016)   |
| DA085 | Longipinene   | C <sub>15</sub> H <sub>24</sub>                 | 16217635        | 204.35                  | (Li et al., 2016; Pei et al., 2017; M. Zhao et al., 2018)                       |
| DA086 | 2,6,6-trimethylbicyclo-[3.1.1]hept-2-ene                      | C <sub>10</sub> H <sub>16</sub>                 | NR              | 136.23                  | (Pei et al., 2017)  |
| DA087 | 5-Ethylidene-2-norbornene                                     | C <sub>9</sub> H <sub>12</sub>                  | 27756           | 120.19                  | (Liu et al., 2016)  |
| DA088 | 3,7-Dimethyl-1,3,7-octatriene                                 | C <sub>10</sub> H <sub>16</sub>                 | 5320249         | 136.23                  | (Pei et al., 2017)  |
| DA089 | β-Pinene  | C <sub>10</sub> H <sub>16</sub>                 | 14896           | 136.23                  | (Li et al., 2016; X. Wang et al., 2018)   |
| DA090 | Sabinene  | C <sub>10</sub> H <sub>16</sub>                 | 18818           | 136.23                  | (Li et al., 2016)   |
| DA091 | γ-Terpinene   | C <sub>10</sub> H <sub>16</sub>                 | 7461            | 136.23                  | (Li et al., 2016; X. Wang et al., 2018)   |
| DA092 | 1-Pentadecene   | C <sub>15</sub> H <sub>30</sub>                 | 25913           | 210.4                   | (X. Wang et al., 2018)  |
| DA093 | 1-(Methylpropyl)-4-(1',1',2'-trichloro-3'-ethylallyl) benzene | C <sub>15</sub> H <sub>22</sub> Cl <sub>3</sub> | 5373097         | 305.7                   | (X. Wang et al., 2018)  |
| DA094 | 1-methoxy-4-[1-propenyl]-benzene                              | C <sub>10</sub> H <sub>12</sub> O               | NR              | 148.21                  | (Pei et al., 2017)  |
| DA095 | Ethylbenzene  | C <sub>8</sub> H <sub>10</sub>                  | 7500            | 106.16                  | (Li et al., 2016)   |
| DA096 | Methylbenzene   | C <sub>7</sub> H <sub>8</sub>                   | 1140            | 92.14                   | (Li et al., 2016)   |
| DA097 | Pentylbenzene   | C <sub>11</sub> H <sub>16</sub>                 | 10864           | 148.24                  | (Li et al., 2016; Pei et al., 2017)   |
| DA098 | P-xylene  | C <sub>8</sub> H <sub>10</sub>                  | 7809            | 106.16                  | (Li et al., 2016)   |
| DA099 | Squalene  | C <sub>30</sub> H <sub>50</sub>                 | 638072          | 410.7                   | (X. Wang et al., 2018)  |

| No.   | Derivatives and Constituents                 | Molecular Formula                                 | PubChem CID/SID | Molecule Weight (g/mol) | References                                   |
|-------|--|---|-----------------|-------------------------|--|
| DA100 | Styrene                                      | C <sub>8</sub> H <sub>8</sub>                     | 7501            | 104.15                  | (Li et al., 2016)                            |
| DA101 | Hexanoic acid, 2-butenyl ester               | C <sub>10</sub> H <sub>18</sub> O <sub>2</sub>    | 5369196         | 170.25                  | (Pei et al., 2017)                           |
| DA102 | Ethyl butyrate                               | C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>     | 7762            | 116.16                  | (Liu et al., 2016)                           |
| DA103 | Hexadecanoic acid, trimethylsilyl ester      | C <sub>19</sub> H <sub>40</sub> O <sub>2</sub> Si | 521638          | 328.6                   | (X. Wang et al., 2018)                       |
| DA104 | Hexadecanoic acid, butyl ester               | C <sub>20</sub> H <sub>40</sub> O <sub>2</sub>    | 8090            | 312.5                   | (X. Wang et al., 2018)                       |
| DA105 | Hydratropic acid                             | C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>     | 10296           | 150.17                  | (Liu et al., 2016)                           |
| DA106 | Stearic acid                                 | C <sub>18</sub> H <sub>36</sub> O <sub>2</sub>    | 5281            | 284.5                   | (L. Wang et al., 2016; X. Wang et al., 2018) |
| DA107 | Stearolic acid                               | C <sub>18</sub> H <sub>32</sub> O <sub>2</sub>    | 68167           | 280.4                   | (Pei et al., 2017)                           |
| DA108 | Tetradecanoic acid                           | C <sub>14</sub> H <sub>28</sub> O <sub>2</sub>    | 11005           | 228.37                  | (Pei et al., 2017)                           |
| DA109 | Trans-2-hexen-1-yl ester, phenylacetic acid  | C <sub>14</sub> H <sub>18</sub> O <sub>2</sub>    | 5368236         | 218.29                  | (Pei et al., 2017)                           |
| DA110 | (-)-4-terpineol                              | C <sub>10</sub> H <sub>18</sub> O                 | 5325830         | 154.25                  | (Pei et al., 2017)                           |
| DA111 | (-)- $\alpha$ -Terpineol                     | C <sub>10</sub> H <sub>18</sub> O                 | 443162          | 154.25                  | (Pei et al., 2017; X. Wang et al., 2018)     |
| DA112 | (6-hydroxymethyl-2,3-dimethylphenyl)methanol | C <sub>10</sub> H <sub>14</sub> O <sub>2</sub>    | 590603          | 166.22                  | (Pei et al., 2017)                           |
| DA113 | [Z]-2-[3-cyclopropyl-7-norcaranyl]acetate    | C <sub>13</sub> H <sub>20</sub> O <sub>2</sub>    | NR              | 208.3                   | (Pei et al., 2017)                           |
| DA114 | 10-Undecenal                                 | C <sub>11</sub> H <sub>20</sub> O                 | 8187            | 168.28                  | (Pei et al., 2017)                           |
| DA115 | 1H-Benzimidazol-2-amine                      | C <sub>7</sub> H <sub>7</sub> N <sub>3</sub>      | 13624           | 133.15                  | (Liu et al., 2016)                           |
| DA116 | 1-Tridecyn-4-ol                              | C <sub>13</sub> H <sub>24</sub> O                 | 557899          | 196.33                  | (Pei et al., 2017)                           |
| DA117 | 2,5-dimethyl-3-hexanol acetate               | C <sub>10</sub> H <sub>20</sub> O <sub>2</sub>    | 537590          | 172.26                  | (Pei et al., 2017)                           |
| DA118 | 2,9-Dimethyldecane                           | C <sub>12</sub> H <sub>26</sub>                   | 517733          | 170.34                  | (Pei et al., 2017)                           |
| DA119 | 2-Methoxy-(4'-hydroxyphenyl)ethanol          | C <sub>9</sub> H <sub>12</sub> O <sub>3</sub>     | NR #            | 168.19                  | (Wei, 2016)                                  |
| DA120 | 2-Methyldodecane                             | C <sub>13</sub> H <sub>28</sub>                   | 15270           | 184.36                  | (Pei et al., 2017)                           |
| DA121 | Dodecane                                     | C <sub>12</sub> H <sub>26</sub>                   | 8182            | 170.33                  | (X. Wang et al., 2018)                       |
| DA122 | 2-Methylnonane                               | C <sub>10</sub> H <sub>22</sub>                   | 13379           | 142.28                  | (Pei et al., 2017)                           |
| DA123 | 2-Propylphenol                               | C <sub>9</sub> H <sub>12</sub> O                  | 12570           | 125.70                  | (Zhu, 2018)                                  |
| DA124 | 2-Octanal                                    | C <sub>10</sub> H <sub>16</sub>                   | NR              | 136.24                  | (Pei et al., 2017)                           |
| DA125 | 3,4-Dimethylbenzaldehyde                     | C <sub>9</sub> H <sub>10</sub> O                  | 22278           | 134.17                  | (Pei et al., 2017)                           |
| DA126 | 4-Methyl-2-tert-octylphenol                  | C <sub>15</sub> H <sub>24</sub> O                 | 521263          | 220.35                  | (Pei et al., 2017)                           |
| DA127 | 4-Methyl-5-decanol                           | C <sub>11</sub> H <sub>24</sub> O                 | 557858          | 172.31                  | (Pei et al., 2017)                           |

| No.   | Derivatives and Constituents   | Molecular Formula                              | PubChem CID/SID | Molecule Weight (g/mol) | References                               |
|-------|--|--|-----------------|-------------------------|--|
| DA128 | 5,6-dihydro-4-[2,3-dimethyl-2-buten-4-yl]-2H-pyran-2-one                         | C <sub>11</sub> H <sub>16</sub> O <sub>2</sub> | 535261          | 180.24                  | (Pei et al., 2017)                       |
| DA129 | 5,9,9-Trimethyl-spiro[3.5]non-5-en-1-one   | C <sub>12</sub> H <sub>18</sub> O              | 578422          | 178.27                  | (Pei et al., 2017)                       |
| DA130 | 5-Decen-1-ol   | C <sub>10</sub> H <sub>20</sub> O              | 5283292         | 156.26                  | (Pei et al., 2017)                       |
| DA131 | 5-Formyl-2,4-dimethyl-pyrrole-3-carbonitrile                                     | C <sub>8</sub> H <sub>8</sub> N <sub>2</sub> O | NR              | 148.16                  | (Liu et al., 2016)                       |
| DA132 | 6,7-dimethylbicyclo[4.2.0]octane   | C <sub>10</sub> H <sub>18</sub>                | NR              | 138.25                  | (Pei et al., 2017)                       |
| DA133 | Oleyl alcohol  | C <sub>18</sub> H <sub>36</sub> O              | 5284499         | 268.5                   | (X. Wang et al., 2018)                   |
| DA134 | Benzaldehyde   | C <sub>7</sub> H <sub>6</sub> O                | 240             | 106.12                  | (Li et al., 2016)                        |
| DA135 | Butylicene phthalide   | C <sub>12</sub> H <sub>12</sub> O <sub>2</sub> | NR              | 188.23                  | (Pei et al., 2017)                       |
| DA136 | Butyl-linolenate   | C <sub>22</sub> H <sub>38</sub> O <sub>2</sub> | 20833774        | 334.5                   | (X. Wang et al., 2018)                   |
| DA137 | Calarene   | C <sub>15</sub> H <sub>24</sub>                | 28481           | 204.35                  | (Li et al., 2016)                        |
| DA138 | Campesterol  | C <sub>28</sub> H <sub>48</sub> O              | 173183          | 400.7                   | (X. Wang et al., 2018)                   |
| DA139 | Carvacrol  | C <sub>10</sub> H <sub>14</sub> O              | 10364           | 150.22                  | (Pei et al., 2017)                       |
| DA140 | Carveol  | C <sub>10</sub> H <sub>16</sub> O              | 7438            | 152.23                  | (Li et al., 2016)                        |
| DA141 | Cis-7-tetradecen-1-ol  | C <sub>14</sub> H <sub>28</sub> O              | 5362795         | 212.37                  | (Pei et al., 2017)                       |
| DA142 | Cis-Z,Z'-3 $\alpha$ ,7 $\alpha'$ ,7 $\alpha$ ,3 $\alpha'$ -dihydroxyiligustilide | NR   | NR              | NR                      | (Li et al., 2017)                        |
| DA143 | Dodecanal  | C <sub>12</sub> H <sub>24</sub> O              | 8194            | 184.32                  | (Pei et al., 2017; X. Wang et al., 2018) |
| DA144 | Dodecyloxirane   | C <sub>14</sub> H <sub>28</sub> O              | 18604           | 212.37                  | (Pei et al., 2017)                       |
| DA145 | E-10-pentadecenol  | C <sub>15</sub> H <sub>30</sub> O              | 5364466         | 226.4                   | (Pei et al., 2017)                       |
| DA146 | E-7-tetradecen-1-ol  | C <sub>14</sub> H <sub>28</sub> O              | 5362726         | 212.37                  | (Pei et al., 2017)                       |
| DA147 | Eicosane   | C <sub>20</sub> H <sub>42</sub>                | 8222            | 282.5                   | (X. Wang et al., 2018)                   |
| DA148 | Espatulenol  | C <sub>15</sub> H <sub>24</sub> O              | 6432640         | 220.35                  | (X. Wang et al., 2018)                   |
| DA149 | Heptane  | C <sub>7</sub> H <sub>16</sub>                 | 8900            | 100.2                   | (Pei et al., 2017)                       |
| DA150 | Hexadecene   | C <sub>16</sub> H <sub>32</sub>                | NR              | 224.42                  | (X. Wang et al., 2018)                   |
| DA151 | Iso-butylicene phthalide   | C <sub>12</sub> H <sub>12</sub> O <sub>2</sub> | NR              | 188.23                  | (Pei et al., 2017)                       |
| DA152 | Methyl linoleate   | C <sub>19</sub> H <sub>34</sub> O <sub>2</sub> | 5284421         | 294.5                   | (X. Wang et al., 2018; Zhu, 2018)        |
| DA153 | Methyl linolenate  | C <sub>19</sub> H <sub>32</sub> O <sub>2</sub> | 5319706         | 292.5                   | (X. Wang et al., 2018)                   |
| DA154 | Methyl palmitate   | C <sub>17</sub> H <sub>34</sub> O <sub>2</sub> | 8181            | 270.5                   | (X. Wang et al., 2018)                   |
| DA155 | N-Hexyl alcohol  | C <sub>6</sub> H <sub>14</sub> O               | 8103            | 102.17                  | (Li et al., 2016)                        |

| No.   | Derivatives and Constituents                         | Molecular Formula                              | PubChem CID/SID | Molecule Weight (g/mol) | References                                   |
|-------|--|--|-----------------|-------------------------|--|
| DA156 | Nonanal  | C <sub>9</sub> H <sub>18</sub> O               | 31289           | 142.24                  | (Li et al., 2016)                            |
| DA157 | Nonane   | C <sub>9</sub> H <sub>20</sub>                 | 8141            | 128.25                  | (Pei et al., 2017)                           |
| DA158 | Octane   | C <sub>8</sub> H <sub>18</sub>                 | 356             | 114.23                  | (Pei et al., 2017)                           |
| DA159 | Patchouli alcohol                                    | C <sub>15</sub> H <sub>26</sub> O              | 10955174        | 222.37                  | (Pei et al., 2017)                           |
| DA160 | Palustrol  | C <sub>15</sub> H <sub>26</sub> O              | 110745          | 222.37                  | (X. Wang et al., 2018)                       |
| DA161 | 1-Pentadecanol                                       | C <sub>15</sub> H <sub>32</sub> O              | 12397           | 228.41                  | (X. Wang et al., 2018)                       |
| DA162 | Stigmasterol   | C <sub>29</sub> H <sub>48</sub> O              | 5280794         | 412.7                   | (X. Wang et al., 2018)                       |
| DA163 | N-Tetradecane  | C <sub>14</sub> H <sub>30</sub>                | 12389           | 198.39                  | (X. Wang et al., 2018)                       |
| DA164 | Trans,trans-2,4-Hexadienyl acetate                   | C <sub>8</sub> H <sub>12</sub> O <sub>2</sub>  | 5363491         | 140.18                  | (Pei et al., 2017)                           |
| DA165 | 2-Undecanone   | C <sub>11</sub> H <sub>22</sub> O              | 8163            | 170.29                  | (X. Wang et al., 2018)                       |
| DA166 | β-Elementone   | C <sub>15</sub> H <sub>22</sub> O              | 10955018        | 218.33                  | (Liu et al., 2016)                           |
| DA167 | 2-(1-oxypropyl)-benzoic acid methyl ester            | C <sub>13</sub> H <sub>16</sub> O <sub>3</sub> | NR              | 220.27                  | (L. Wang et al., 2016)                       |
| DA168 | 1,2-Xylene   | C <sub>8</sub> H <sub>10</sub>                 | 7237            | 106.16                  | (Li et al., 2016)                            |
| DA169 | p-cymene   | C <sub>10</sub> H <sub>14</sub>                | 7463            | 134.22                  | (Li et al., 2016)                            |
| DA170 | 2,2'-Methylenebis(4-methyl-6-tert-butylphenol)       | C <sub>23</sub> H <sub>32</sub> O <sub>2</sub> | 8398            | 340.5                   | (X. Wang et al., 2018)                       |
| DA171 | Tropone  | C <sub>7</sub> H <sub>6</sub> O                | 10881           | 106.12                  | (X. Wang et al., 2018)                       |
| DA172 | 4-Octanone   | C <sub>8</sub> H <sub>16</sub> O               | 11516           | 128.21                  | (Li et al., 2016)                            |
| DA173 | 2-Nonanone   | C <sub>9</sub> H <sub>18</sub> O               | 13187           | 142.24                  | (Li et al., 2016)                            |
| DA174 | 1,13-Tetradecadiene                                  | C <sub>14</sub> H <sub>26</sub>                | 30875           | 194.36                  | (X. Wang et al., 2018)                       |
| DA175 | 5-Acetoxyethylfurfural                               | C <sub>8</sub> H <sub>8</sub> O <sub>4</sub>   | 66349           | 168.15                  | (Wu et al., 2016; Xu, 2016)                  |
| DA176 | 2,6,6-Trimethylbicyclo[3,1,1]hept-2-ene              | C <sub>16</sub> H <sub>22</sub> O              | NR #            | 230.34                  | (M. Zhao et al., 2018)                       |
| DA177 | 5-Hydroxyethylfurfural                               | C <sub>6</sub> H <sub>6</sub> O <sub>3</sub>   | 237332          | 126.11                  | (Wu et al., 2016; Xu, 2016)                  |
| DA178 | Nonylcyclopropane                                    | C <sub>12</sub> H <sub>24</sub>                | 522556          | 168.32                  | (X. Wang et al., 2018)                       |
| DA179 | 10,13-Octadecadienoic acid methyl ester              | C <sub>19</sub> H <sub>34</sub> O <sub>2</sub> | 549045          | 294.5                   | (X. Wang et al., 2018)                       |
| DA180 | (E,Z)-Alloocimene                                    | C <sub>10</sub> H <sub>16</sub>                | 5462627         | 136.23                  | (X. Wang et al., 2018)                       |
| DA181 | (Z)-4-propenyl-2-methoxyphenol                       | C <sub>10</sub> H <sub>12</sub> O <sub>2</sub> | NR              | 164.2                   | (X. Wang et al., 2018)                       |
| DA182 | Trans-2-nonenal                                      | C <sub>9</sub> H <sub>16</sub> O               | 5283335         | 140.22                  | (Li et al., 2016)                            |
| DA183 | 2-Methoxy-2-(4'-Hydroxyphenyl)ethanol                | C <sub>9</sub> H <sub>12</sub> O <sub>3</sub>  | 22297411        | 168.19                  | (Wu et al., 2016)                            |
| DA184 | Cyclohexene, 3-(1,5-dimethyl-4-hexenyl)-6-methylene- | C <sub>15</sub> H <sub>24</sub>                | 519764          | 204.35                  | (X. Wang et al., 2018; M. Zhao et al., 2018) |
| DA185 | Cyclopropane, trimethyl(2-methyl-1-propenylidene)-   | C <sub>10</sub> H <sub>16</sub>                | 139833          | 136.23                  | (X. Wang et al., 2018)                       |

| No.   | Derivatives and Constituents   | Molecular Formula                                | PubChem CID/SID | Molecule Weight (g/mol) | References  |
|-------|--|--|-----------------|-------------------------|---|
| DA186 | Cyclohexane, 1-methylene-4-(1-methylethenyl)-  | C <sub>10</sub> H <sub>16</sub>                  | 68140           | 136.23                  | (X. Wang et al., 2018)                                  |
| DA187 | 1,3,6-Octatriene, 3,7-dimethyl-, (E)-  | C <sub>10</sub> H <sub>16</sub>                  | NR              | 136.23                  | (M. Zhao et al., 2018)                                  |
| DA188 | 6,6-dimethyl-2-methylene-, (1S)-Bicyclo(3.1.1)heptane                                | C <sub>10</sub> H <sub>16</sub>                  | 24848167        | 136.23                  | (M. Zhao et al., 2018)                                  |
| DA189 | 3'-methoxybenzotrile-(1',2'-b)-1,4-triethylenediamine                                | C <sub>11</sub> H <sub>14</sub> N <sub>2</sub> O | NR              | 190.25                  | (M. Zhao et al., 2018)                                  |
| DA190 | 1,5,6,7-Tetramethylbicyclo[3.2.0]hepta-2,6-diene                                     | C <sub>11</sub> H <sub>16</sub>                  | 583876          | 148.24                  | (M. Zhao et al., 2018)                                  |
| DA191 | 2(3H)-Benzofuranone, 4,5,6,7-tetramethyl-  | C <sub>12</sub> H <sub>14</sub> O <sub>2</sub>   | 595374          | 190.24                  | (M. Zhao et al., 2018)                                  |
| DA192 | Dihydrocoumarin, 5,7,8-trimethyl-  | C <sub>12</sub> H <sub>14</sub> O <sub>2</sub>   | 605390          | 190.24                  | (M. Zhao et al., 2018)                                  |
| DA193 | Cyclohexane, 1-ethenyl-1-methyl-2-(1-methylethenyl)-4-(1-methylethylidene)-          | C <sub>15</sub> H <sub>24</sub>                  | 94254           | 204.35                  | (M. Zhao et al., 2018)                                  |
| DA194 | Cyclohexane, 1-ethylene-1-methyl-2-(1-methylethenyl)-4-(1R,2R)-(1-methylethylidene)- | C <sub>15</sub> H <sub>24</sub>                  | NR              | 204.35                  | (M. Zhao et al., 2018)                                  |
| DA195 | Cyclohexene, 3-(1,5-dimethyl-4-ethenyl)-6-methylene-[S-(R*,S*)]                      | C <sub>15</sub> H <sub>24</sub>                  | NR              | 204.35                  | (M. Zhao et al., 2018)                                  |
| DA196 | 6-Undecanone   | C <sub>11</sub> H <sub>22</sub> O                | 13561           | 170.29                  | (X. Wang et al., 2018)                                  |
| DA197 | 2-Hydroxy-2-(4'-ethoxyethyl)ethanol  | NR   | NR              | NR                      | (Wu et al., 2016)                                       |
| DA198 | Di(2-ethylhexyl)phthalate  | C <sub>24</sub> H <sub>38</sub> O <sub>4</sub>   | 8343            | 390.6                   | (X. Wang et al., 2018)                                  |
| DA199 | Ethyl linoleate  | C <sub>20</sub> H <sub>36</sub> O <sub>2</sub>   | 5282184         | 308.5                   | (X. Wang et al., 2018)                                  |
| DA200 | Propoxur   | C <sub>11</sub> H <sub>15</sub> NO <sub>3</sub>  | 4944            | 209.24                  | (X. Wang et al., 2018)                                  |
| DA201 | (3R,8S)-faltarindiol   | C <sub>17</sub> H <sub>24</sub> O <sub>2</sub>   | 5281148         | 260.399                 | (Li et al., 2017; Wu et al., 2016; Xu, 2016; Zhu, 2018) |
| DA202 | β-Sitosterol   | C <sub>29</sub> H <sub>50</sub> O                | 222284          | 414.7                   | (Ma et al., 2016; Wei, 2016; Zhu, 2018)                 |
| DA203 | γ-Sitosterol   | C <sub>29</sub> H <sub>50</sub> O                | 457801          | 414.7                   | (X. Wang et al., 2018)                                  |
| DA204 | 1-(3',4'-dihydroxycinnamoyl)-cyclopentane-2,3-diol                                   | NR   | NR              | NR                      | (Luo et al., 2017)                                      |
| DA205 | 4,10-Aromadendranediol   | C <sub>15</sub> H <sub>26</sub> O <sub>2</sub>   | 14312736        | 238.37                  | (Zhu, 2018)   |
| DA206 | Benzyl alcohol   | C <sub>7</sub> H <sub>8</sub> O                  | 244             | 108.14                  | (Li et al., 2016)                                       |
| DA207 | Daucosterol  | C <sub>35</sub> H <sub>60</sub> O <sub>6</sub>   | 5742590         | 576.8                   | (Ma et al., 2016; Wei, 2016; Zhu, 2018)                 |
| DA208 | Globulol   | C <sub>15</sub> H <sub>26</sub> O                | 101716          | 222.37                  | (X. Wang et al., 2018)                                  |
| DA209 | 1-Pentanone, 1-phenyl-   | C <sub>11</sub> H <sub>14</sub> O                | 66093           | 162.23                  | (Li et al., 2016)                                       |
| DA210 | Undecane   | C <sub>11</sub> H <sub>24</sub>                  | 14257           | 156.31                  | (X. Wang et al., 2018)                                  |

| No.       | Derivatives and Constituents                   | Molecular Formula                               | PubChem CID/SID | Molecule Weight (g/mol) | References   |
|-----------|--|---|-----------------|-------------------------|--|
| DA211     | D-threo-guaiacylglycerol 8-O-β-glucopyranoside | C <sub>16</sub> H <sub>24</sub> O <sub>10</sub> | NR #            | 376.36                  | (Wei, 2016)  |
| DA212     | Hexanal  | C <sub>6</sub> H <sub>12</sub> O                | 6184            | 100.16                  | (Li et al., 2016)  |
| DA213     | Isophorone                                     | C <sub>9</sub> H <sub>14</sub> O                | 6544            | 138.21                  | (Li et al., 2016)  |
| DA214     | Vanillin                                       | C <sub>8</sub> H <sub>8</sub> O <sub>3</sub>    | 1183            | 152.15                  | (Wu et al., 2016; Xu, 2016; Zhu, 2018)   |
| DA215     | P-cresol                                       | C <sub>7</sub> H <sub>8</sub> O                 | 2879            | 108.14                  | (Wu et al., 2016)  |
| DA216     | P-hydroxyacetophenone                          | C <sub>8</sub> H <sub>8</sub> O <sub>2</sub>    | 7469            | 136.15                  | (Zhu, 2018)  |
| <b>DB</b> | <b>Phthalides (n=39)</b>                       |   |                 |                         |  |
| DB001     | Z-ligustilide                                  | C <sub>12</sub> H <sub>14</sub> O <sub>2</sub>  | 529865          | 190.24                  | (Li et al., 2017; Liu et al., 2016; Liu, 2018; L. Wang et al., 2016; X. Wang et al., 2018; Wei et al., 2016; C. Wu et al., 2018) |
| DB002     | E-ligustilide                                  | C <sub>12</sub> H <sub>14</sub> O <sub>2</sub>  | 5877292         | 190.24                  | (Liu et al., 2016; L. Wang et al., 2019; L. Wang et al., 2016; X. Wang et al., 2018; Wei et al., 2016)                           |
| DB003     | Z-butylidenephthalide                          | C <sub>12</sub> H <sub>12</sub> O <sub>2</sub>  | 5352899         | 188.22                  | (Gong et al., 2016; L. Wang et al., 2016; Wei et al., 2016; M. Zhao et al., 2018)  |
| DB004     | E-butylidenephthalide                          | C <sub>12</sub> H <sub>12</sub> O <sub>2</sub>  | 275559960       | 188.22                  | (Gong et al., 2016; L. Wang et al., 2016; Wei et al., 2016)  |
| DB005     | Butylphthalide                                 | C <sub>12</sub> H <sub>14</sub> O <sub>2</sub>  | 61361           | 190.24                  | (L. Wang et al., 2016; Wei et al., 2016; Wu et al., 2016; Xu, 2016)  |
| DB006     | Senkyunolide A                                 | C <sub>12</sub> H <sub>16</sub> O <sub>2</sub>  | 3085257         | 192.25                  | (Ma et al., 2017; L. Wang et al., 2016; Wei et al., 2016)  |
| DB007     | Senkyunolide I                                 | C <sub>12</sub> H <sub>16</sub> O <sub>4</sub>  | 11521428        | 224.25                  | (Liu, 2018; Ma et al., 2017; Wei et al., 2016)   |
| DB008     | Z-ligustilide dimer E-232                      | C <sub>24</sub> H <sub>28</sub> O <sub>4</sub>  | NR #            | 380.48                  | (Wei et al., 2016)   |

| No.   | Derivatives and Constituents | Molecular Formula                              | PubChem CID/SID | Molecule Weight (g/mol) | References  |
|-------|------------------------------|--|-----------------|-------------------------|---|
| DB009 | Senkyunolide H               | C <sub>12</sub> H <sub>16</sub> O <sub>4</sub> | 5321251         | 224.25                  | (Ma et al., 2017; Y. Wang et al., 2016; Wei et al., 2016; G. Wu et al., 2018)   |
| DB010 | Senkyunolide P               | C <sub>24</sub> H <sub>30</sub> O <sub>4</sub> | 91731751        | 382.5                   | (Wei et al., 2016)  |
| DB011 | Levistolide A                | C <sub>24</sub> H <sub>28</sub> O <sub>4</sub> | 70698035        | 380.5                   | (Y. Wang et al., 2016; Wei et al., 2016)  |
| DB012 | Riligustilide                | C <sub>24</sub> H <sub>28</sub> O <sub>4</sub> | 6442656         | 380.5                   | (Gong et al., 2016; Wei et al., 2016)   |
| DB013 | Tokinolide B                 | C <sub>24</sub> H <sub>28</sub> O <sub>4</sub> | 11090206        | 380.5                   | (Y. Wang et al., 2016; Wei et al., 2016; Wu et al., 2016; Xu, 2016; Zhu, 2018)  |
| DB014 | Neocnidilide                 | C <sub>12</sub> H <sub>18</sub> O <sub>2</sub> | 3083857         | 194.27                  | (Wei et al., 2016)  |
| DB015 | Ansaspirolide                | C <sub>24</sub> H <sub>26</sub> O <sub>4</sub> | 44575265        | 378.5                   | (Wei et al., 2016)  |
| DB016 | Z,Z'-6.8',7.3'-diligustilide | C <sub>24</sub> H <sub>28</sub> O <sub>4</sub> | NR #            | 380.48                  | (Wei et al., 2016)  |
| DB017 | Angelicide                   | C <sub>24</sub> H <sub>28</sub> O <sub>4</sub> | 5316848         | 380.48                  | (Y. Wang et al., 2016; Wei et al., 2016)  |
| DB018 | Z,Z'-3.3'8.8'-diligustilide  | C <sub>24</sub> H <sub>28</sub> O <sub>4</sub> | NR #            | 380.48                  | (Y. Wang et al., 2016; Wei et al., 2016)  |
| DB019 | Senkyunolide F               | C <sub>12</sub> H <sub>14</sub> O <sub>3</sub> | NR #            | 206.24                  | (Y. Wang et al., 2016; Wei et al., 2016)  |
| DB020 | Ligustilide dimer 1          | C <sub>24</sub> H <sub>28</sub> O <sub>4</sub> | NR              | 380.48                  | (X. Wang et al., 2018)  |
| DB021 | Ligustilide dimer 2          | C <sub>24</sub> H <sub>28</sub> O <sub>4</sub> | NR              | 380.48                  | (X. Wang et al., 2018)  |
| DB022 | Ligustilide dimer 3          | C <sub>24</sub> H <sub>28</sub> O <sub>4</sub> | NR              | 380.48                  | (X. Wang et al., 2018)  |
| DB023 | Ligustilide dimer 4          | C <sub>24</sub> H <sub>28</sub> O <sub>4</sub> | NR              | 380.48                  | (N. Wang et al., 2017; X. Wang et al., 2018)  |
| DB024 | 3-Butylidenephthalide        | C <sub>12</sub> H <sub>12</sub> O <sub>2</sub> | 642376          | 188.22                  | (Li et al., 2017; Li et al., 2016; Liu et al., 2016; Ma et al., 2016; N. Wang et al., 2017; X. Wang et al., 2018; G. Wu et al., 2018) |
| DB025 | 3-N-butylphthalide           | C <sub>12</sub> H <sub>14</sub> O <sub>2</sub> | 61361           | 190.24                  | (Li et al., 2016; G. Wu et al., 2018)   |

| No.       | Derivatives and Constituents                 | Molecular Formula                              | PubChem CID/SID | Molecule Weight (g/mol) | References  |
|-----------|--|--|-----------------|-------------------------|---|
| DB026     | 3-Butylidene-7-hydroxyphthalide              | C <sub>12</sub> H <sub>12</sub> O <sub>3</sub> | 5281559         | 204.22                  | (L. Wang et al., 2019)  |
| DB027     | Bergapten                                    | C <sub>12</sub> H <sub>8</sub> O <sub>4</sub>  | 2355            | 216.19                  | (Jiang et al., 2019)  |
| DB028     | Senkyunolide E                               | C <sub>12</sub> H <sub>12</sub> O <sub>3</sub> | 11830530        | 204.22                  | (Y. Wang et al., 2016)  |
| DB029     | Senkyunolide G                               | C <sub>12</sub> H <sub>16</sub> O <sub>3</sub> | 10013283        | 208.25                  | (L. Wang et al., 2019)  |
| DB030     | Senkyunolide R                               | C <sub>12</sub> H <sub>16</sub> O <sub>5</sub> | 101686923       | 240.25                  | (Ma et al., 2016; Wei, 2016)  |
| DB031     | Senkyunolide S                               | C <sub>12</sub> H <sub>16</sub> O <sub>5</sub> | 101686926       | 240.25                  | (Ma et al., 2016; Wei, 2016)  |
| DB032     | Z, Z'-6,6',7,3α'-diligustilide               | C <sub>24</sub> H <sub>28</sub> O <sub>4</sub> | NR #            | 380.5                   | (Li et al., 2017; Zhu, 2018)  |
| DB033     | E-6,7-dihydroxydihydrologustilide            | C <sub>12</sub> H <sub>16</sub> O <sub>4</sub> | NR              | 224.26                  | (L. Wang et al., 2016)  |
| DB034     | Senkyunolide D                               | C <sub>12</sub> H <sub>14</sub> O <sub>4</sub> | NR #            | 222.24                  | (L. Wang et al., 2016)  |
| DB035     | Z-6,7-epoxyligustilide                       | C <sub>12</sub> H <sub>14</sub> O <sub>3</sub> | 5317139         | 206.24                  | (Liu, 2018; L. Wang et al., 2016)   |
| DB036     | Cis-Z,Z'-3a, 7a',7a.3a'-dihydroxyligustilide | C <sub>24</sub> H <sub>28</sub> O <sub>4</sub> | NR #            | 380.48                  | (Gong et al., 2016)   |
| DB037     | Tokinolide A                                 | C <sub>12</sub> H <sub>14</sub> O <sub>2</sub> | NR #            | 190.24                  | (Gong et al., 2016)   |
| DB038     | Tokinolide C                                 | C <sub>24</sub> H <sub>32</sub> O <sub>3</sub> | NR #            | 368.52                  | (Gong et al., 2016)   |
| DB039     | 11-Angeloylsenkyunolide F                    |  | NR              |                         | (Liu, 2018)   |
| <b>DC</b> | <b>Organic acids (n=26)</b>                  |  |                 |                         |   |
| DC001     | Protocatechuic acid                          | C <sub>7</sub> H <sub>6</sub> O <sub>4</sub>   | 72              | 154.12                  | (Wei et al., 2016)  |
| DC002     | Phthalic acid                                | C <sub>8</sub> H <sub>6</sub> O <sub>4</sub>   | 1017            | 166.13                  | (L. Wang et al., 2019; L. Wang et al., 2016; Wei et al., 2016)  |
| DC003     | P-hydroxybenzoic acid                        | C <sub>7</sub> H <sub>6</sub> O <sub>3</sub>   | 135             | 138.12                  | (Wei et al., 2016)  |
| DC004     | Vanillic acid                                | C <sub>8</sub> H <sub>8</sub> O <sub>4</sub>   | 8468            | 168.15                  | (L. Wang et al., 2019; L. Wang et al., 2016; Wei et al., 2016)  |
| DC005     | Ferulic acid                                 | C <sub>10</sub> H <sub>10</sub> O <sub>4</sub> | 445858          | 194.18                  | (Ding, 2016; Gao, 2016; Guan et al., 2018; Huang, 2017; Li et al., 2017; Ma et al., 2017; Pan et al., 2017; Su, 2019; Sun et al., 2019; N. Wang et al., 2017; Wei et al., 2016; G. Wu et al., 2018; Wu et al., 2016; Zhu, 2018) |

| No.       | Derivatives and Constituents                 | Molecular Formula   | PubChem CID/SID | Molecule Weight (g/mol) | References   |
|-----------|--|---|-----------------|-------------------------|--|
| DC006     | Caffeic acid                                 | C <sub>9</sub> H <sub>8</sub> O <sub>4</sub>                  | 689043          | 180.16                  | (Guan et al., 2018; Wei et al., 2016)                              |
| DC007     | Folinic acid                                 | C <sub>20</sub> H <sub>23</sub> N <sub>7</sub> O <sub>7</sub> | 135403648       | 473.4                   | (Wei et al., 2016)   |
| DC008     | Folic acid                                   | C <sub>19</sub> H <sub>19</sub> N <sub>7</sub> O <sub>6</sub> | 135398658       | 441.4                   | (Wei et al., 2016)   |
| DC009     | Nicotinic acid                               | C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>                 | 938             | 123.11                  | (Wei et al., 2016)   |
| DC010     | Succinic acid                                | C <sub>4</sub> H <sub>6</sub> O <sub>4</sub>                  | 1110            | 118.09                  | (Wei et al., 2016)   |
| DC011     | Anisic acid                                  | C <sub>8</sub> H <sub>8</sub> O <sub>3</sub>                  | 7478            | 152.15                  | (Wei et al., 2016)   |
| DC012     | Azelaic acid                                 | C <sub>9</sub> H <sub>16</sub> O <sub>4</sub>                 | 2266            | 188.22                  | (Wei et al., 2016)   |
| DC013     | Palmitic acid                                | C <sub>16</sub> H <sub>32</sub> O <sub>2</sub>                | 985             | 256.43                  | (X. Wang et al., 2018; Wei et al., 2016)                           |
| DC014     | Lactic acid                                  | C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>                  | 612             | 90.08                   | (Li et al., 2017)  |
| DC015     | Acetic acid                                  | C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>                  | 176             | 60.05                   | (Pei et al., 2017)   |
| DC016     | Chlorogenic acid                             | C <sub>16</sub> H <sub>18</sub> O <sub>9</sub>                | 1794427         | 354.31                  | (L. Wang et al., 2019)   |
| DC017     | Citric acid                                  | C <sub>6</sub> H <sub>8</sub> O <sub>7</sub>                  | 311             | 192.12                  | (Li et al., 2017)  |
| DC018     | Formic acid                                  | CH <sub>2</sub> O <sub>2</sub>                                | 284             | 46.025                  | (Li et al., 2017)  |
| DC019     | Fumaric acid                                 | C <sub>4</sub> H <sub>4</sub> O <sub>4</sub>                  | 444972          | 116.07                  | (Li et al., 2017)  |
| DC020     | Hexanoic acid                                | C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>                 | 8892            | 116.16                  | (Li et al., 2016)  |
| DC021     | Linoleic acid                                | C <sub>18</sub> H <sub>32</sub> O <sub>2</sub>                | 5280450         | 280.4                   | (L. Wang et al., 2019; L. Wang et al., 2016; X. Wang et al., 2018) |
| DC022     | Linolenic acid                               | C <sub>18</sub> H <sub>30</sub> O <sub>2</sub>                | 5280934         | 278.4                   | (J. Wang et al., 2016)   |
| DC023     | Octadecenoic acid                            | C <sub>18</sub> H <sub>34</sub> O <sub>2</sub>                | 172146          | 282.5                   | (J. Wang et al., 2016)   |
| DC024     | Cinnamic acid                                | C <sub>9</sub> H <sub>8</sub> O <sub>2</sub>                  | 444539          | 444539                  | (Zhu, 2018)  |
| DC025     | 5-Caffeoylquinic acid                        | C <sub>16</sub> H <sub>18</sub> O <sub>9</sub>                | 12310830        | 354.3                   | (Wei, 2016)  |
| DC026     | Phytic acid                                  | C <sub>6</sub> H <sub>18</sub> O <sub>24</sub> P <sub>6</sub> | 890             | 660.04                  | (Filipiak-Szok et al., 2016)                                       |
| <b>DD</b> | <b>Coumarins (n=14)</b>                      |   |                 |                         |  |
| DD001     | 7H-Furo[3,2-g][1]benzopyran-7-one,9-hydroxy- | C <sub>11</sub> H <sub>6</sub> O <sub>4</sub>                 | 65090           | 202.16                  | (Jiang et al., 2019)   |
| DD002     | (+)-Marmesin                                 | C <sub>14</sub> H <sub>14</sub> O <sub>4</sub>                | 334704          | 246.26                  | (Jiang et al., 2019)   |
| DD003     | 7-Hydroxy-6-methoxycoumarin                  | C <sub>10</sub> H <sub>8</sub> O <sub>4</sub>                 | 5280460         | 192.17                  | (Zhu, 2018)  |
| DD004     | 8-Methoxypsoralen                            | C <sub>12</sub> H <sub>8</sub> O <sub>4</sub>                 | 4114            | 216.19                  | (Jiang et al., 2019)   |
| DD005     | Imperatorin                                  | C <sub>16</sub> H <sub>14</sub> O <sub>4</sub>                | 10212           | 270.28                  | (Jiang et al., 2019)   |

| No.       | Derivatives and Constituents                         | Molecular Formula  | PubChem CID/SID | Molecule Weight (g/mol) | References  |
|-----------|--|--|-----------------|-------------------------|---|
| DD006     | Alloisimperatorin                                    | C <sub>16</sub> H <sub>14</sub> O <sub>4</sub>                               | 5317436         | 270.28                  | (Jiang et al., 2019)                              |
| DD007     | Isoimperatorin                                       | C <sub>16</sub> H <sub>14</sub> O <sub>4</sub>                               | 68081           | 270.28                  | (Jiang et al., 2019; Xu, 2016)                    |
| DD008     | Isopimpinellin                                       | C <sub>13</sub> H <sub>10</sub> O <sub>5</sub>                               | 68079           | 246.21                  | (Jiang et al., 2019)                              |
| DD009     | Osthenol   | C <sub>14</sub> H <sub>14</sub> O <sub>3</sub>                               | 5320318         | 230.26                  | (Jiang et al., 2019)                              |
| DD010     | Oxypeucedanin  | C <sub>16</sub> H <sub>14</sub> O <sub>5</sub>                               | 160544          | 286.28                  | (Jiang et al., 2019)                              |
| DD011     | Pabulenol  | C <sub>16</sub> H <sub>14</sub> O <sub>5</sub>                               | 3009225         | 286.28                  | (Jiang et al., 2019)                              |
| DD012     | Phellopterin   | C <sub>17</sub> H <sub>16</sub> O <sub>5</sub>                               | 98608           | 300.3                   | (Jiang et al., 2019)                              |
| DD013     | Psoralen   | C <sub>11</sub> H <sub>6</sub> O <sub>3</sub>                                | 6199            | 186.16                  | (Jiang et al., 2019)                              |
| DD014     | Cnidilin   | C <sub>17</sub> H <sub>16</sub> O <sub>5</sub>                               | 821449          | 300.3                   | (Jiang et al., 2019)                              |
| <b>DE</b> | <b>Phospholipids (n=2)</b>                           |  |                 |                         |   |
| DE001     | 1,2-di-O-hexadecanoyl-sn-glycero-3-phosphorylcholine | C <sub>40</sub> H <sub>80</sub> NO <sub>8</sub> P                            | NR #            | 734.05                  | (Ma et al., 2016; Wei, 2016)                      |
| DE002     | 1-O-hexadecanoyl-sn-glycero-3-phosphorylcholine      | C <sub>24</sub> H <sub>50</sub> NO <sub>7</sub> P                            | NR #            | 495.64                  | (Ma et al., 2016; Wei, 2016)                      |
| <b>DF</b> | <b>Nucleosides (n=12)</b>                            |  |                 |                         |   |
| DF001     | Adenosine  | C <sub>10</sub> H <sub>13</sub> N <sub>5</sub> O <sub>4</sub>                | 60961           | 267.25                  | (Ma et al., 2016; Wei, 2016; H. Zhu et al., 2017) |
| DF002     | Uridine  | C <sub>9</sub> H <sub>12</sub> N <sub>2</sub> O <sub>6</sub>                 | 6029            | 244.2                   | (Li et al., 2017; H. Zhu et al., 2017)            |
| DF003     | Inosine  | C <sub>10</sub> H <sub>12</sub> N <sub>4</sub> O <sub>5</sub>                | 6021            | 268.23                  | (S. Zhu et al., 2017)                             |
| DF004     | Cytidine   | C <sub>9</sub> H <sub>13</sub> N <sub>3</sub> O <sub>5</sub>                 | 6175            | 243.22                  | (S. Zhu et al., 2017)                             |
| DF005     | Thymidine  | C <sub>10</sub> H <sub>14</sub> N <sub>2</sub> O <sub>5</sub>                | 5789            | 242.23                  | (S. Zhu et al., 2017)                             |
| DF006     | Guanosine  | C <sub>10</sub> H <sub>13</sub> N <sub>5</sub> O <sub>5</sub>                | 6802            | 283.24                  | (S. Zhu et al., 2017)                             |
| DF007     | Adenosine-5'-monophosphate                           | C <sub>10</sub> H <sub>12</sub> N <sub>5</sub> O <sub>7</sub> P <sub>2</sub> | 15938965        | 345.21                  | (S. Zhu et al., 2017)                             |
| DF008     | Guanosine-5'-monophosphate                           | C <sub>10</sub> H <sub>14</sub> N <sub>5</sub> O <sub>8</sub> P              | 135398631       | 363.22                  | (S. Zhu et al., 2017)                             |
| DF009     | 2'-Deoxyadenosine                                    | C <sub>10</sub> H <sub>13</sub> N <sub>5</sub> O <sub>3</sub>                | 13730           | 251.24                  | (S. Zhu et al., 2017)                             |
| DF010     | 2'-Deoxyadenosine-5'-monophosphate                   | C <sub>10</sub> H <sub>14</sub> N <sub>5</sub> O <sub>6</sub> P              | 12599           | 331.22                  | (S. Zhu et al., 2017)                             |
| DF011     | 2'-Deoxyinosine                                      | C <sub>10</sub> H <sub>12</sub> N <sub>4</sub> O <sub>4</sub>                | 135398593       | 252.23                  | (S. Zhu et al., 2017)                             |
| DF012     | Cytidine-5'-monophosphate                            | C <sub>9</sub> H <sub>14</sub> N <sub>3</sub> O <sub>8</sub> P               | 6131            | 323.2                   | (S. Zhu et al., 2017)                             |
| <b>DG</b> | <b>Nucleobases (n=6)</b>                             |  |                 |                         |   |
| DG001     | Adenine  | C <sub>5</sub> H <sub>5</sub> N <sub>5</sub>                                 | 190             | 135.13                  | (S. Zhu et al., 2017)                             |
| DG002     | Uracil   | C <sub>4</sub> H <sub>4</sub> N <sub>2</sub> O <sub>2</sub>                  | 1174            | 112.09                  | (S. Zhu et al., 2017)                             |
| DG003     | Thymine  | C <sub>5</sub> H <sub>6</sub> N <sub>2</sub> O <sub>2</sub>                  | 1135            | 126.11                  | (S. Zhu et al., 2017)                             |

| No.       | Derivatives and Constituents | Molecular Formula   | PubChem CID/SID | Molecule Weight (g/mol) | References                                     |
|-----------|------------------------------|---|-----------------|-------------------------|--|
| DG004     | Guanine                      | C <sub>5</sub> H <sub>5</sub> N <sub>5</sub> O                              | 135398634       | 151.13                  | (S. Zhu et al., 2017)                          |
| DG005     | Hypoxanthine                 | C <sub>5</sub> H <sub>4</sub> N <sub>4</sub> O                              | 135398638       | 136.11                  | (S. Zhu et al., 2017)                          |
| DG006     | Cytosine                     | C <sub>4</sub> H <sub>5</sub> N <sub>3</sub> O                              | 597             | 111.1                   | (S. Zhu et al., 2017)                          |
| <b>DH</b> | <b>Amino acids (n=17)</b>    |   |                 |                         |  |
| DH001     | Proline                      | C <sub>5</sub> H <sub>9</sub> NO <sub>2</sub>                               | 614             | 115.13                  | (Li et al., 2017; Wei et al., 2016)            |
| DH002     | Cystine                      | C <sub>6</sub> H <sub>12</sub> N <sub>2</sub> O <sub>4</sub> S <sub>2</sub> | 595             | 240.3                   | (Wei et al., 2016)                             |
| DH003     | Valine                       | C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub>                              | 6287            | 117.15                  | (Li et al., 2017; Wei et al., 2016; Zhu, 2018) |
| DH004     | Isoleucine                   | C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub>                              | 6306            | 131.17                  | (Li et al., 2017; Wei et al., 2016; Zhu, 2018) |
| DH005     | Phenylalanine                | C <sub>9</sub> H <sub>11</sub> NO <sub>2</sub>                              | 6140            | 165.19                  | (Li et al., 2017; Wei et al., 2016; Zhu, 2018) |
| DH006     | Asparaginic acid             | C <sub>4</sub> H <sub>7</sub> NO <sub>4</sub>                               | 5960            | 133.1                   | (Li et al., 2017; Wei et al., 2016; Zhu, 2018) |
| DH007     | Methionine                   | C <sub>3</sub> H <sub>11</sub> NO <sub>2</sub> S                            | 6137            | 149.208                 | (Li et al., 2017; Wei et al., 2016; Zhu, 2018) |
| DH008     | Histidine                    | C <sub>6</sub> H <sub>9</sub> N <sub>3</sub> O <sub>2</sub>                 | 6274            | 155.15                  | (Wei et al., 2016)                             |
| DH009     | γ-Aminobutyric acid          | C <sub>4</sub> H <sub>9</sub> NO <sub>2</sub>                               | 119             | 103.12                  | (Wei et al., 2016; Zhu, 2018)                  |
| DH010     | Glutamic acid                | C <sub>5</sub> H <sub>9</sub> NO <sub>4</sub>                               | 33032           | 147.13                  | (Li et al., 2017)                              |
| DH011     | Alanine                      | C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub>                               | 5950            | 89.09                   | (Li et al., 2017)                              |
| DH012     | Arginine                     | C <sub>6</sub> H <sub>14</sub> N <sub>4</sub> O <sub>2</sub>                | 6322            | 174.2                   | (Li et al., 2017)                              |
| DH013     | Threonine                    | C <sub>4</sub> H <sub>9</sub> NO <sub>3</sub>                               | 6288            | 119.12                  | (Li et al., 2017)                              |
| DH014     | Tryptophan                   | C <sub>11</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub>               | 6305            | 204.22                  | (Li et al., 2017; Zhu, 2018)                   |
| DH015     | Tyrosine                     | C <sub>9</sub> H <sub>11</sub> NO <sub>3</sub>                              | 6057            | 181.19                  | (Li et al., 2017; Zhu, 2018)                   |
| DH016     | L-Proline                    | C <sub>5</sub> H <sub>9</sub> NO <sub>2</sub>                               | 145742          | 115.13                  | (S. Zhu et al., 2017)                          |
| DH017     | Taurine                      | C <sub>2</sub> H <sub>7</sub> NO <sub>3</sub> S                             | 1123            | 125.15                  | (S. Zhu et al., 2017)                          |
| <b>DI</b> | <b>Alkaloids (n=1)</b>       |   |                 |                         |  |
| DI001     | Banegasine                   | C <sub>11</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub>               | NR #            | 204.23                  | (Ma et al., 2016; Wei, 2016)                   |
| <b>DJ</b> | <b>Vitamins (n=2)</b>        |   |                 |                         |  |
| DJ001     | Vitamin E                    | C <sub>29</sub> H <sub>50</sub> O <sub>2</sub>                              | 14985           | 430.7                   | (X. Wang et al., 2018)                         |

| No.       | Derivatives and Constituents | Molecular Formula                               | PubChem CID/SID | Molecule Weight (g/mol) | References                                    |
|-----------|------------------------------|---|-----------------|-------------------------|---|
| DJ002     | Choline                      | C <sub>5</sub> H <sub>14</sub> NO <sup>+</sup>  | 305             | 104.17                  | (Li et al., 2017)                             |
| <b>DK</b> | <b>Monoglycerides (n=1)</b>  |   |                 |                         |   |
| DK001     | Glyceryl monolinoleate       | C <sub>21</sub> H <sub>38</sub> O <sub>4</sub>  | 5283469         | 354.5                   | (Zhu, 2018)                                   |
| <b>DL</b> | <b>Carbohydrates (n=43)</b>  |   |                 |                         |   |
| DL001     | α-Glucose                    | C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>   | 79025           | 180.16                  | (Li et al., 2017)                             |
| DL002     | β-Glucose                    | C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>   | 64689           | 180.16                  | (Li et al., 2017)                             |
| DL003     | Sucrose                      | C <sub>12</sub> H <sub>22</sub> O <sub>11</sub> | 5988            | 342.3                   | (Li et al., 2017; Ma et al., 2016; Wei, 2016) |
| DL004     | Maltose                      | C <sub>12</sub> H <sub>22</sub> O <sub>11</sub> | 6255            | 342.3                   | (Ma et al., 2016; Wei, 2016)                  |
| DL005     | As-IIIa                      | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL006     | As-IIIb                      | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL007     | X-C-3-II                     | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL008     | X-C-3-III                    | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL009     | X-C-3-IV                     | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL010     | XC-1                         | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL011     | ASP1                         | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL012     | ASP2                         | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL013     | ASP3                         | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL014     | APF1                         | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL015     | APF2                         | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL016     | APF3                         | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL017     | W-ASP11                      | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL018     | W-ASP12                      | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL019     | W-ASP-2                      | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL020     | W-ASP-3                      | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL021     | APS-1cI                      | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL022     | APS-1cII                     | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL023     | APS-1d                       | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL024     | ASDII-3-3                    | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL025     | APS-2a                       | NR  | NR              | NR                      | (Wei et al., 2016)                            |
| DL026     | APS-bII                      | NR  | NR              | NR                      | (Wei et al., 2016)                            |

| No.       | Derivatives and Constituents          | Molecular Formula                                 | PubChem CID/SID | Molecule Weight (g/mol) | References             |
|-----------|---------------------------------------|---|-----------------|-------------------------|------------------------|
| DL027     | APS-3a                                | NR  | NR              | NR                      | (Wei et al., 2016)     |
| DL028     | APS-3b                                | NR  | NR              | NR                      | (Wei et al., 2016)     |
| DL029     | APS-3c                                | NR  | NR              | NR                      | (Wei et al., 2016)     |
| DL030     | APS-1a                                | NR  | NR              | NR                      | (Wei et al., 2016)     |
| DL031     | ASPSF1                                | NR  | NR              | NR                      | (Wei et al., 2016)     |
| DL032     | ASPSF2                                | NR  | NR              | NR                      | (Wei et al., 2016)     |
| DL033     | ASPSF3                                | NR  | NR              | NR                      | (Wei et al., 2016)     |
| DL034     | ASPSF4                                | NR  | NR              | NR                      | (Wei et al., 2016)     |
| DL035     | ASTP                                  | NR  | NR              | NR                      | (Wei et al., 2016)     |
| DL036     | ASTUP                                 | NR  | NR              | NR                      | (Wei et al., 2016)     |
| DL037     | ASJP                                  | NR  | NR              | NR                      | (Wei et al., 2016)     |
| DL038     | ASYP                                  | NR  | NR              | NR                      | (Wei et al., 2016)     |
| DL039     | CAPS30                                | NR  | NR              | NR                      | (J. Wang et al., 2016) |
| DL040     | CAPS50                                | NR  | NR              | NR                      | (J. Wang et al., 2016) |
| DL041     | CAPS70                                | NR  | NR              | NR                      | (J. Wang et al., 2016) |
| DL042     | CAPS80                                | NR  | NR              | NR                      | (J. Wang et al., 2016) |
| DL043     | CAPSt                                 | NR  | NR              | NR                      | (J. Wang et al., 2016) |
| <b>DM</b> | <b>Phthalic monoglycosides (n=11)</b> |   |                 |                         |                        |
| DM001     | Ligustilide glucoside sulphate 1      | C <sub>21</sub> H <sub>24</sub> O <sub>17</sub> S | NR              | 580.48                  | (L. Wang et al., 2019) |
| DM002     | Ligustilide glucoside sulphate 2      | C <sub>21</sub> H <sub>24</sub> O <sub>17</sub> S | NR              | 580.48                  | (L. Wang et al., 2019) |
| DM003     | Ligustilide glucoside sulphate 3      | C <sub>21</sub> H <sub>24</sub> O <sub>17</sub> S | NR              | 580.48                  | (L. Wang et al., 2019) |
| DM004     | Ligustilide glucoside sulphate 4      | C <sub>21</sub> H <sub>24</sub> O <sub>17</sub> S | NR              | 580.48                  | (L. Wang et al., 2019) |
| DM005     | Phthalide derivative glucoside 1      | C <sub>25</sub> H <sub>30</sub> O <sub>13</sub>   | NR              | 538.51                  | (L. Wang et al., 2019) |
| DM006     | Phthalide derivative glucoside 2      | C <sub>25</sub> H <sub>20</sub> O <sub>13</sub>   | NR              | 538.51                  | (L. Wang et al., 2019) |
| DM007     | Phthalide derivative glucoside 3      | C <sub>25</sub> H <sub>20</sub> O <sub>13</sub>   | NR              | 538.51                  | (L. Wang et al., 2019) |
| DM008     | Phthalide derivative glucoside 4      | C <sub>24</sub> H <sub>20</sub> O <sub>13</sub>   | NR              | 516.42                  | (L. Wang et al., 2019) |
| DM009     | Phthalide derivative glucoside 5      | C <sub>26</sub> H <sub>22</sub> O <sub>13</sub>   | NR              | 542.45                  | (L. Wang et al., 2019) |
| DM010     | Phthalide glucoside sulphate 1        | C <sub>18</sub> H <sub>28</sub> O <sub>11</sub> S | NR              | 452.48                  | (L. Wang et al., 2019) |
| DM011     | Phthalide glucoside sulphate 2        | C <sub>18</sub> H <sub>28</sub> O <sub>11</sub> S | NR              | 452.48                  | (L. Wang et al., 2019) |
| <b>DN</b> | <b>Elements (n=18)</b>                |   |                 |                         |                        |

| No.   | Derivatives and Constituents | Molecular Formula | PubChem CID/SID | Molecule Weight (g/mol) | References  |
|-------|------------------------------|-------------------|-----------------|-------------------------|---|
| DN001 | Arsenic                      | As                | 5359596         | 74.922                  | (Qin, 2017; Rong & Zhang, 2017; H. Wang et al., 2019)                             |
| DN002 | Boron                        | B                 | 5462311         | 10.81                   | (H. Wang et al., 2019)  |
| DN003 | Cadmium                      | Cd                | 23973           | 112.414                 | (Rong & Zhang, 2017; H. Wang et al., 2019)  |
| DN004 | Cobalt                       | Co                | 104730          | 58.933                  | (H. Wang et al., 2019)  |
| DN005 | Chromium                     | Cr                | 23976           | 51.996                  | (Chen, 2017; Cui et al., 2017; H. Wang et al., 2019)                              |
| DN006 | Copper                       | Cu                | 23978           | 63.546                  | (Chen, 2017; Cui et al., 2017; Qin et al., 2017; Qin, 2017; H. Wang et al., 2019) |
| DN007 | Ferrum                       | Fe                | 23925           | 55.84                   | (Chen, 2017; Qin et al., 2017)  |
| DN008 | Mercury                      | Hg                | 23931           | 200.592                 | (Rong & Zhang, 2017; H. Wang et al., 2019)  |
| DN009 | Manganese                    | Mn                | 23930           | 54.938                  | (Chen, 2017; Cui et al., 2017; Qin et al., 2017; H. Wang et al., 2019)            |
| DN010 | Molybdenum                   | Mo                | 23932           | 95.95                   | (Cui et al., 2017; H. Wang et al., 2019)  |
| DN011 | Nickel                       | Ni                | 935             | 58.693                  | (Chen, 2017; H. Wang et al., 2019)  |
| DN012 | Lead                         | Pb                | 5352425         | 207.2                   | (Qin et al., 2017; Rong & Zhang, 2017; H. Wang et al., 2019)                      |
| DN013 | Rubidium                     | Rb                | 5357696         | 85.468                  | (H. Wang et al., 2019)  |
| DN014 | Selenium                     | Se                | 6326970         | 78.971                  | (Chen, 2017; H. Wang et al., 2019)  |
| DN015 | Tin                          | Sn                | 5352426         | 118.71                  | (H. Wang et al., 2019)  |
| DN016 | Strontium                    | Sr                | 5359327         | 87.62                   | (H. Wang et al., 2019)  |
| DN017 | Vanadium                     | V                 | 23990           | 50.941                  | (Chen, 2017; H. Wang et al., 2019)  |

| No.                                      | Derivatives and Constituents | Molecular Formula                               | PubChem CID/SID | Molecule Weight (g/mol) | References  |
|--|------------------------------|---|-----------------|-------------------------|---|
| DN018                                    | Zinc                         | Zn  | 23994           | 65.379                  | (Chen, 2017; Cui et al., 2017; Qin et al., 2017; H. Wang et al., 2019)                            |
| <b>2. Fritillariae Thunbergii Bulbus</b> |                              |   |                 |                         |   |
| ZA                                       | <b>Alkaloids (n=26)</b>      |   |                 |                         |   |
| ZA01                                     | Peimine                      | C <sub>27</sub> H <sub>45</sub> NO <sub>3</sub> | 131900          | 431.661                 | (Chen et al., 2016; Duan et al., 2012; Guo, 2007; Huang, 2016; Kim et al., 2016; Ma et al., 2008) |
| ZA02                                     | Peiminine                    | C <sub>27</sub> H <sub>43</sub> NO <sub>3</sub> | 167691          | 429.645                 | (Cheng et al., 2008; Suh et al., 2018; Xue & Gu, 2005)  |
| ZA03                                     | Zhebeinine                   | C <sub>27</sub> H <sub>45</sub> NO <sub>3</sub> | 21121503        | 431.661                 | (Zhang et al., 1993b)   |
| ZA04                                     | Zhebeinone                   | C <sub>27</sub> H <sub>43</sub> NO <sub>3</sub> | NR #            | 429.645                 | (Zhang et al., 1992)  |
| ZA05                                     | Ebeiedine                    | C <sub>27</sub> H <sub>45</sub> NO <sub>2</sub> | 101324888       | 415.662                 | (Kim et al., 2016; Suh et al., 2018)  |
| ZA06                                     | Ebeiedinone                  | C <sub>27</sub> H <sub>43</sub> NO <sub>2</sub> | 102062796       | 413.646                 | (Suh et al., 2018; X. Wu et al., 2018)  |
| ZA07                                     | Isoverticine                 | C <sub>27</sub> H <sub>45</sub> NO <sub>3</sub> | 21573744        | 431.661                 | (Suh et al., 2018; X. Wu et al., 2018)  |
| ZA08                                     | Suchengbeisine               | C <sub>27</sub> H <sub>43</sub> NO <sub>3</sub> | 102112537       | 429.645                 | (Kim et al., 2016; Suh et al., 2018)  |
| ZA09                                     | Peimisine                    | C <sub>27</sub> H <sub>41</sub> NO <sub>3</sub> | 161294          | 427.629                 | (Duan et al., 2012; Zhou et al., 2010)  |
| ZA10                                     | Peimisine-N-oxide            | C <sub>27</sub> H <sub>42</sub> NO <sub>4</sub> | NR              | 444.636                 | (Cui et al., 2016)  |
| ZA11                                     | Zhebeininoside               | C <sub>33</sub> H <sub>55</sub> NO <sub>8</sub> | NR #            | 593.802                 | (Ma et al., 2014; Zhou et al., 2010)  |
| ZA12                                     | Verticinone-3-β-D-glucoside  | C <sub>33</sub> H <sub>53</sub> NO <sub>8</sub> | 90479257        | 591.786                 | (Zhou et al., 2010)   |
| ZA13                                     | Puqietinone                  | C <sub>28</sub> H <sub>47</sub> NO <sub>2</sub> | 10693900        | 429.689                 | (Zhou et al., 2010)   |
| ZA14                                     | Puqiedinone                  | C <sub>27</sub> H <sub>43</sub> NO <sub>2</sub> | 126149          | 413.646                 | (Ma et al., 2014; Zhou et al., 2010)  |

| No.       | Derivatives and Constituents                     | Molecular Formula   | PubChem CID/SID | Molecule Weight (g/mol) | References                           |
|-----------|--|---|-----------------|-------------------------|--------------------------------------|
| ZA15      | Puqiedine  | C <sub>27</sub> H <sub>45</sub> NO <sub>2</sub>               | 101400593       | 415.662                 | (Ma et al., 2014; Zhou et al., 2010) |
| ZA16      | Eduardine  | C <sub>27</sub> H <sub>43</sub> NO <sub>2</sub>               | NR #            | 413.646                 | (Zhang et al., 1991)                 |
| ZA17      | Zhebeirine                                       | C <sub>27</sub> H <sub>43</sub> NO <sub>2</sub>               | NR #            | 413.646                 | (Zhou et al., 2017)                  |
| ZA18      | 2,3-deoxyladenosine                              | C <sub>10</sub> H <sub>11</sub> N <sub>5</sub> O <sub>2</sub> | NR              | 233.231                 | (Zhou et al., 2017)                  |
| ZA19      | N-demethylpuqietinone                            | C <sub>27</sub> H <sub>45</sub> NO <sub>2</sub>               | 11304576        | 415.662                 | (Zhou et al., 2017)                  |
| ZA20      | Puqienine B                                      | C <sub>28</sub> H <sub>45</sub> NO <sub>2</sub>               | 11419389        | 443.672                 | (Zhou et al., 2017)                  |
| ZA21      | Zhebeinone-3-β-D-glucoside                       | C <sub>33</sub> H <sub>55</sub> NO <sub>8</sub>               | NR #            | 593.802                 | (Zhou et al., 2017)                  |
| ZA22      | Peiminoside                                      | C <sub>33</sub> H <sub>55</sub> NO <sub>7</sub>               | 90479565        | 577.803                 | (Morimoto & Kimata, 1960)            |
| ZA23      | Frithunbol A                                     | C <sub>27</sub> H <sub>41</sub> NO <sub>4</sub>               | NR #            | 443.628                 | (Suh et al., 2018)                   |
| ZA24      | Frithunbol B                                     | C <sub>27</sub> H <sub>42</sub> NO <sub>3</sub>               | NR #            | 428.637                 | (Suh et al., 2018)                   |
| ZA25      | Eduardinine                                      | C <sub>27</sub> H <sub>45</sub> NO <sub>2</sub>               | NR #            | 415.662                 | (Suh et al., 2018)                   |
| ZA26      | 3β-hydroxy-5α-jervanin-12-en-6-one               | C <sub>27</sub> H <sub>42</sub> NO <sub>3</sub>               | NR #            | 428.637                 | (Suh et al., 2018)                   |
| <b>ZB</b> | <b>Compounds from essential oils (n=28)</b>      |   |                 |                         |                                      |
| ZB01      | δ-elemene  | C <sub>15</sub> H <sub>24</sub>                               | 12309449        | 204.357                 | (Cao et al., 2012)                   |
| ZB02      | δ-selinene                                       | C <sub>15</sub> H <sub>24</sub>                               | 520383          | 204.357                 | (Cao et al., 2012)                   |
| ZB03      | Tetradecanoic acid                               | C <sub>14</sub> H <sub>28</sub> O <sub>2</sub>                | 11005           | 228.376                 | (Cao et al., 2012)                   |
| ZB04      | Pentadecanoic acid                               | C <sub>15</sub> H <sub>30</sub> O <sub>2</sub>                | 13849           | 242.403                 | (Cao et al., 2012)                   |
| ZB05      | Hexadecanoic acid, methyl ester                  | C <sub>17</sub> H <sub>34</sub> O <sub>2</sub>                | 8181            | 270.457                 | (Cao et al., 2012; Du et al., 2018)  |
| ZB06      | 9-Hexadecenoic acid                              | C <sub>16</sub> H <sub>30</sub> O <sub>2</sub>                | 5282745         | 254.414                 | (Cao et al., 2012)                   |
| ZB07      | N-hexadecanoic acid                              | C <sub>16</sub> H <sub>32</sub> O <sub>2</sub>                | 985             | 256.43                  | (Cao et al., 2012)                   |
| ZB08      | Kaur-15-ene                                      | C <sub>20</sub> H <sub>32</sub>                               | 521318          | 272.476                 | (Cao et al., 2012)                   |
| ZB09      | Heptadecanoic acid                               | C <sub>17</sub> H <sub>34</sub> O <sub>2</sub>                | 10465           | 270.457                 | (Cao et al., 2012)                   |
| ZB10      | Kaurene  | C <sub>20</sub> H <sub>32</sub>                               | 91746569        | 272.476                 | (Cao et al., 2012)                   |
| ZB11      | 9,12-Octadecadienoic acid (Z,Z)-, methyl ester   | C <sub>19</sub> H <sub>34</sub> O <sub>2</sub>                | 5284421         | 294.479                 | (Cao et al., 2012)                   |
| ZB12      | 9-Tetradecenal, (Z)-                             | C <sub>14</sub> H <sub>26</sub> O                             | 5364471         | 210.361                 | (Cao et al., 2012)                   |
| ZB13      | 9,12-Octadecadienoic acid, methyl ester, (E, E)- | C <sub>19</sub> H <sub>34</sub> O <sub>2</sub>                | 135058711       | 294.479                 | (Cao et al., 2012)                   |
| ZB14      | Oleic acid                                       | C <sub>18</sub> H <sub>34</sub> O <sub>2</sub>                | 445639          | 282.468                 | (Cao et al., 2012)                   |
| ZB15      | Linoleic acid, ethyl ester                       | C <sub>20</sub> H <sub>36</sub> O <sub>2</sub>                | 5282184         | 308.506                 | (Cao et al., 2012)                   |
| ZB16      | Butylated hydroxytoluene                         | C <sub>15</sub> H <sub>24</sub> O                             | 31404           | 220.356                 | (Du et al., 2018)                    |

| No.                           | Derivatives and Constituents  | Molecular Formula                              | PubChem CID/SID | Molecule Weight (g/mol) | References   |
|-------------------------------|---|--|-----------------|-------------------------|--|
| ZB17                          | L-(+)-Ascorbic acid 2,6-dihexadecanoate   | C <sub>38</sub> H <sub>68</sub> O <sub>8</sub> | 54722209        | 652.954                 | (Du et al., 2018)  |
| ZB18                          | Ethyl 9-hexadecenoate   | C <sub>18</sub> H <sub>34</sub> O <sub>2</sub> | 5364759         | 282.468                 | (Du et al., 2018)  |
| ZB19                          | Hexadecanoic acid, ethyl ester  | C <sub>18</sub> H <sub>36</sub> O <sub>2</sub> | 12366           | 284.484                 | (Du et al., 2018)  |
| ZB20                          | 1H-Naphtho [2,1-B] pyran, 3-ethenyldodecahydro-3,4a,7,7,10a-pentamethyl-                                    | C <sub>20</sub> H <sub>34</sub> O              | 273540178       | 290.491                 | (Du et al., 2018)  |
| ZB21                          | Kaur-16-ene   | C <sub>20</sub> H <sub>32</sub> O              | 520687          | 272.476                 | (Du et al., 2018)  |
| ZB22                          | 9,11-Octadecadienoic acid, methyl ester, (E, E)-  | C <sub>19</sub> H <sub>34</sub> O <sub>2</sub> | 319301067       | 294.479                 | (Du et al., 2018)  |
| ZB23                          | 9,12-Octadecadienoic acid   | C <sub>18</sub> H <sub>32</sub> O <sub>2</sub> | 5282457         | 280.452                 | (Du et al., 2018)  |
| ZB24                          | Octadecanoic acid, ethyl ester  | C <sub>20</sub> H <sub>40</sub> O <sub>2</sub> | 8122            | 312.538                 | (Du et al., 2018)  |
| ZB25                          | 2(1H)-Phenanthrene, 3,4,4a,4b,5,6,7,8,10,10a-decahydro-1,1,4a,7,7-pentamethyl, [4aR-(4a.α., 4b.β.,10a.β.)]- | C <sub>19</sub> H <sub>30</sub> O              | 621255          | 274.448                 | (Du et al., 2018)  |
| ZB26                          | 3-Methyleneandrostan-17-ol  | C <sub>20</sub> H <sub>32</sub> O              | 625647          | 288.475                 | (Du et al., 2018)  |
| ZB27                          | Androst-4-en-3-one, 17-hydroxy-, (17.β.)  | C <sub>19</sub> H <sub>28</sub> O <sub>2</sub> | 50049744        | 288.431                 | (Du et al., 2018)  |
| ZB28                          | Podocarp-7-en-3.β.-ol, 13.β.-methyl-13-vinyl-   | C <sub>20</sub> H <sub>32</sub> O              | 620519          | 288.475                 | (Du et al., 2018)  |
| <b>ZC Diterpenoids (n=13)</b> |   |  |                 |                         |  |
| ZC01                          | Isopimaran-19-ol  | C <sub>20</sub> H <sub>32</sub> O              | 75399514        | 288.475                 | (Kitajima, Noda, et al., 1982)                                 |
| ZC02                          | Isopimaran-19-oic acid, methyl ester  | C <sub>21</sub> H <sub>32</sub> O <sub>2</sub> | NR #            | 316.485                 | (Kitajima, Komori, et al., 1982; Kitajima, Noda, et al., 1982) |
| ZC03                          | Ent-kauran-16β, 17-diol   | C <sub>20</sub> H <sub>34</sub> O <sub>2</sub> | NR #            | 306.49                  | (Kitajima, Komori, et al., 1982; Kitajima, Noda, et al., 1982) |
| ZC04                          | Ent-kauran-16α, 17-diol   | C <sub>20</sub> H <sub>34</sub> O <sub>2</sub> | NR #            | 306.49                  | (Kitajima, Komori, et al., 1982; Kitajima, Noda, et al., 1982) |
| ZC05                          | Ent-16β, 17-epoxy-kaurane   | C <sub>20</sub> H <sub>32</sub> O              | 79592848        | 288.475                 | (Kitajima, Noda, et al., 1982)                                 |
| ZC06                          | Ent-16α-methoxy-kauran-17-ol  | C <sub>21</sub> H <sub>36</sub> O <sub>2</sub> | 51842049        | 320.517                 | (Kitajima, Noda, et al., 1982)                                 |
| ZC07                          | Ent-kaur-15-en-17-ol  | C <sub>20</sub> H <sub>32</sub> O              | 3082069         | 288.475                 | (Kitajima, Noda, et al., 1982)                                 |
| ZC08                          | Trans-communol  | C <sub>20</sub> H <sub>32</sub> O              | 51909318        | 288.475                 | (Kitajima, Komori, et al., 1982)                               |
| ZC09                          | Trans-communic acid, methyl ester   | C <sub>21</sub> H <sub>32</sub> O <sub>2</sub> | NR #            | 316.485                 | (Kitajima, Komori, et al., 1982)                               |
| ZC10                          | Ent-17-norkauran-16-one   | C <sub>19</sub> H <sub>30</sub> O              | 12740861        | 274.448                 | (Kitajima, Komori, et al., 1982)                               |
| ZC11                          | Ent-15β,16-epoxy-kauran-17-ol   | C <sub>20</sub> H <sub>32</sub> O <sub>2</sub> | 51511087        | 304.474                 | (Kitajima, Komori, et al., 1982)                               |
| ZC12                          | Ent-16β-hydroxy-kauran-17-yl ent-kaur-15-en-17-oate   | C <sub>40</sub> H <sub>63</sub> O <sub>3</sub> | NR #            | 591.941                 | (Kitajima, Komori, et al., 1982)                               |

| No.       | Derivatives and Constituents  | Molecular Formula   | PubChem CID/SID | Molecule Weight (g/mol) | References                       |
|-----------|-------------------------------|---|-----------------|-------------------------|----------------------------------|
| ZC13      | Ent-(16S)-atisan-13, 17-oxide | C <sub>20</sub> H <sub>32</sub> O   | 50418337        | 288.475                 | (Kitajima, Komori, et al., 1982) |
| <b>ZD</b> | <b>Carbohydrates (n=2)</b>    |   |                 |                         |                                  |
| ZD01      | β-D-glucose4-1β-D-galactose   | C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>                             | NR #            | 342.297                 | (Chen & Wang, 2012)              |
| ZD02      | Sucrose                       | C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>                             | 5988            | 342.297                 | (Chen & Wang, 2012)              |
| <b>ZE</b> | <b>Sterols (n=2)</b>          |   |                 |                         |                                  |
| ZE01      | β-sitosterol                  | C <sub>29</sub> H <sub>50</sub> O   | 222284          | 414.718                 | (Zhang et al., 1993b)            |
| ZE02      | Daucosterol                   | C <sub>35</sub> H <sub>60</sub> O <sub>6</sub>                              | 5742590         | 576.859                 | (Zhang et al., 1993b)            |
| <b>ZF</b> | <b>Amino acids (n=18)</b>     |   |                 |                         |                                  |
| ZF01      | Glycine                       | C <sub>2</sub> H <sub>5</sub> NO <sub>2</sub>                               | 750             | 75.067                  | (C. Zhang et al., 2016)          |
| ZF02      | Leucine                       | C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub>                              | 6106            | 131.175                 | (C. Zhang et al., 2016)          |
| ZF03      | Methionine                    | C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub> S                            | 6137            | 149.208                 | (C. Zhang et al., 2016)          |
| ZF04      | Tyrosine                      | C <sub>9</sub> H <sub>11</sub> NO <sub>3</sub>                              | 6057            | 181.191                 | (C. Zhang et al., 2016)          |
| ZF05      | Histidine                     | C <sub>6</sub> H <sub>9</sub> N <sub>3</sub> O <sub>2</sub>                 | 6274            | 155.157                 | (C. Zhang et al., 2016)          |
| ZF06      | Threonine                     | C <sub>4</sub> H <sub>9</sub> NO <sub>3</sub>                               | 6288            | 119.12                  | (C. Zhang et al., 2016)          |
| ZF07      | Alanine                       | C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub>                               | 5950            | 89.094                  | (C. Zhang et al., 2016)          |
| ZF08      | Isoleucine                    | C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub>                              | 6306            | 131.175                 | (C. Zhang et al., 2016)          |
| ZF09      | Tryptophan                    | C <sub>11</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub>               | 6305            | 204.229                 | (C. Zhang et al., 2016)          |
| ZF10      | Cystine                       | C <sub>6</sub> H <sub>12</sub> N <sub>2</sub> O <sub>4</sub> S <sub>2</sub> | 67678           | 240.292                 | (C. Zhang et al., 2016)          |
| ZF11      | Lysine                        | C <sub>6</sub> H <sub>14</sub> N <sub>2</sub> O <sub>2</sub>                | 5962            | 146.19                  | (C. Zhang et al., 2016)          |
| ZF12      | Aspartic acid                 | C <sub>4</sub> H <sub>7</sub> NO <sub>4</sub>                               | 5960            | 133.103                 | (C. Zhang et al., 2016)          |
| ZF13      | Valine                        | C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub>                              | 6287            | 117.148                 | (C. Zhang et al., 2016)          |
| ZF14      | Phenylalanine                 | C <sub>8</sub> H <sub>8</sub> O <sub>2</sub>                                | 6140            | 165.192                 | (C. Zhang et al., 2016)          |
| ZF15      | Proline                       | C <sub>5</sub> H <sub>9</sub> NO <sub>2</sub>                               | 145742          | 115.132                 | (C. Zhang et al., 2016)          |
| ZF16      | Serine                        | C <sub>3</sub> H <sub>7</sub> NO <sub>3</sub>                               | 5951            | 105.093                 | (C. Zhang et al., 2016)          |
| ZF17      | Glutamic acid                 | C <sub>5</sub> H <sub>9</sub> NO <sub>4</sub>                               | 33032           | 147.13                  | (C. Zhang et al., 2016)          |
| ZF18      | Arginine                      | C <sub>6</sub> H <sub>14</sub> N <sub>4</sub> O <sub>2</sub>                | 6322            | 174.204                 | (C. Zhang et al., 2016)          |
| <b>ZG</b> | <b>Nucleosides (n=6)</b>      |   |                 |                         |                                  |
| ZG01      | Uridine                       | C <sub>9</sub> H <sub>12</sub> N <sub>2</sub> O <sub>6</sub>                | 6029            | 244.203                 | (C. Zhang et al., 2016)          |
| ZG02      | Guanosine                     | C <sub>10</sub> H <sub>13</sub> N <sub>5</sub> O <sub>5</sub>               | 6802            | 283.244                 | (C. Zhang et al., 2016)          |
| ZG03      | Adenosine                     | C <sub>10</sub> H <sub>13</sub> N <sub>5</sub> O <sub>4</sub>               | 60961           | 267.245                 | (C. Zhang et al., 2016)          |
| ZG04      | Thymidine                     | C <sub>10</sub> H <sub>14</sub> N <sub>2</sub> O <sub>5</sub>               | 5789            | 242.231                 | (C. Zhang et al., 2016)          |

| No.       | Derivatives and Constituents                       | Molecular Formula   | PubChem CID/SID | Molecule Weight (g/mol) | References  |
|-----------|--|---|-----------------|-------------------------|---|
| ZG05      | Cytidine   | C <sub>9</sub> H <sub>13</sub> N <sub>3</sub> O <sub>5</sub>  | 6175            | 243.219                 | (C. Zhang et al., 2016)                                 |
| ZG06      | Inosine  | C <sub>10</sub> H <sub>12</sub> N <sub>4</sub> O <sub>5</sub> | 6021            | 268.229                 | (C. Zhang et al., 2016)                                 |
| <b>ZH</b> | <b>Nucleobases (n=4)</b>                           |   |                 |                         |   |
| ZH01      | Adenine  | C <sub>5</sub> H <sub>5</sub> N <sub>5</sub>                  | 190             | 135.13                  | (C. Zhang et al., 2016)                                 |
| ZH02      | Hypoxanthine                                       | C <sub>5</sub> H <sub>4</sub> N <sub>4</sub> O                | 790             | 136.114                 | (C. Zhang et al., 2016)                                 |
| ZH03      | Uracil   | C <sub>4</sub> H <sub>4</sub> N <sub>2</sub> O <sub>2</sub>   | 1174            | 112.088                 | (C. Zhang et al., 2016)                                 |
| ZH04      | Thymine  | C <sub>5</sub> H <sub>6</sub> N <sub>2</sub> O <sub>2</sub>   | 1135            | 126.115                 | (C. Zhang et al., 2016)                                 |
| <b>ZI</b> | <b>Fatty acids (n=4)</b>                           |   |                 |                         |   |
| ZI01      | Vernolic acid                                      | C <sub>18</sub> H <sub>32</sub> O <sub>3</sub>                | 6449780         | 296.451                 | (Zhou et al., 2017)                                     |
| ZI02      | 2-monopalmitin                                     | C <sub>19</sub> H <sub>38</sub> O <sub>4</sub>                | 123409          | 330.509                 | (Zhou et al., 2017)                                     |
| ZI03      | 13(R)-hydroxy-octadeca-(9Z,11E,15Z)-trien-oic acid | C <sub>18</sub> H <sub>30</sub> O <sub>3</sub>                | 643726          | 294.435                 | (Zhou et al., 2017)                                     |
| ZI04      | Picropodophyllotoxin                               | C <sub>22</sub> H <sub>22</sub> O <sub>8</sub>                | 72435           | 414.41                  | (Zhang et al., 1993a)                                   |
| <b>ZJ</b> | <b>Lignans (n=3)</b>                               |   |                 |                         |   |
| ZJ01      | Octahydrocurcumin                                  | C <sub>21</sub> H <sub>28</sub> O <sub>6</sub>                | 11068834        | 376.449                 | (Zhou et al., 2017)                                     |
| ZJ02      | Zhebeiresinol                                      | C <sub>14</sub> H <sub>16</sub> O <sub>6</sub>                | 192547          | 280.276                 | (Jin et al., 1993; Zhou et al., 2017)                   |
| ZJ03      | Sauriol B  | C <sub>21</sub> H <sub>28</sub> O <sub>6</sub>                | 15965508        | 376.449                 | (Zhou et al., 2017)                                     |
| <b>ZK</b> | <b>Elements (n=27)</b>                             |   |                 |                         |   |
| ZK01      | Aluminum   | Al  | 5359268         | 26.982                  | (Yu et al., 2007; Yuan et al., 2010)                    |
| ZK02      | Arsenic  | As  | 5359596         | 74.922                  | (Yu et al., 2007; Yuan et al., 2010)                    |
| ZK03      | Boron  | B   | 5462311         | 10.81                   | (Cai et al., 2013; Lou et al., 2014; Zhou et al., 2014) |
| ZK04      | Barium   | Ba  | 5355457         | 137.327                 | (Cai et al., 2013; Yuan et al., 2010)                   |
| ZK05      | Bismuth  | Bi  | 5359367         | 208.98                  | (Cai et al., 2013)                                      |
| ZK06      | Calcium  | Ca  | 5460341         | 40.078                  | Yuan et al., 2010; Wang et al., 2007                    |
| ZK07      | Cadmium  | Cd  | 23973           | 112.414                 | (Cai et al., 2013; Lou et al., 2014; Zhou et al., 2014) |

| No.  | Derivatives and Constituents | Molecular Formula | PubChem CID/SID | Molecule Weight (g/mol) | References                            |
|------|------------------------------|-------------------|-----------------|-------------------------|---------------------------------------|
| ZK08 | Cobalt                       | Co                | 104730          | 58.933                  | (Cai et al., 2013; Yu et al., 2007)   |
| ZK09 | Chromium                     | Cr                | 23976           | 51.996                  | (Liu et al., 2008; Yu et al., 2007)   |
| ZK10 | Copper                       | Cu                | 23978           | 63.546                  | (Cai et al., 2013; Lou et al., 2014)  |
| ZK11 | Iron                         | Fe                | 23925           | 55.845                  | (Cai et al., 2013; Lou et al., 2014)  |
| ZK12 | Mercury                      | Hg                | 23931           | 200.592                 | (Cai et al., 2013; Lou et al., 2014)  |
| ZK13 | Indium                       | In                | 5359967         | 114.818                 | (Cai et al., 2013)                    |
| ZK14 | Potassium                    | K                 | 5462222         | 39.098                  | (Yu et al., 2007; Yuan et al., 2010)  |
| ZK15 | Lithium                      | Li                | 3028194         | 6.94                    | (Lou et al., 2014)                    |
| ZK16 | Magnesium                    | Mg                | 5462224         | 24.305                  | (Lou et al., 2014; Yuan et al., 2010) |
| ZK17 | Manganese                    | Mn                | 23930           | 54.938                  | (Cai et al., 2013; Lou et al., 2014)  |
| ZK18 | Molybdenum                   | Mo                | 23932           | 95.95                   | (Yuan et al., 2010)                   |
| ZK19 | Sodium                       | Na                | 5360545         | 22.99                   | (Yu et al., 2007; Yuan et al., 2010)  |
| ZK20 | Nickel                       | Ni                | 935             | 58.693                  | (Cai et al., 2013; Yuan et al., 2010) |
| ZK21 | Phosphorus                   | P                 | 5462309         | 30.974                  | (Yuan et al., 2010)                   |
| ZK22 | Lead                         | Pb                | 5352425         | 207.2                   | (Cai et al., 2013; Lou et al., 2014)  |
| ZK23 | Sulphur                      | S                 | 5362487         | 32.06                   | (Lou et al., 2014)                    |
| ZK24 | Selenium                     | Se                | 6326970         | 78.971                  | (Wu et al., 1998)                     |
| ZK25 | Strontium                    | Sr                | 5359327         | 87.62                   | (Lou et al., 2014; Yu et al., 2007)   |
| ZK26 | Vanadium                     | V                 | 23990           | 50.941                  | (Wu & Zheng, 1997)                    |

| No.                                 | Derivatives and Constituents            | Molecular Formula                               | PubChem CID/SID | Molecule Weight (g/mol) | References   |
|-------------------------------------|---|---|-----------------|-------------------------|--|
| ZK27                                | Zinc                                    | Zn  | 23994           | 65.379                  | (Cai et al., 2013; Lou et al., 2014)                   |
| <b>3. Sophorae Flavescens Radix</b> |   |   |                 |                         |  |
| <b>KA</b>                           | <b>Flavonoids (n=179)</b>               |   |                 |                         |  |
| KA001                               | Quercetin                               | C <sub>15</sub> H <sub>10</sub> O <sub>7</sub>  | 5280343         | 302.23                  | (He et al., 2015; Weng et al., 2018)                   |
| KA002                               | Rutin                                   | C <sub>27</sub> H <sub>30</sub> O <sub>16</sub> | 5280805         | 610.5                   | (He et al., 2015; Lee et al., 2018; Weng et al., 2018) |
| KA003                               | Kushenol C                              | C <sub>25</sub> H <sub>26</sub> O <sub>7</sub>  | 5481237         | 438.5                   | (He et al., 2015; Kim et al., 2018)                    |
| KA004                               | Methylkushenol C                        | C <sub>26</sub> H <sub>28</sub> O <sub>7</sub>  | NR #            | 452.5                   | (He et al., 2015)                                      |
| KA005                               | Kushenol G                              | C <sub>25</sub> H <sub>28</sub> O <sub>8</sub>  | 44259516        | 456.5                   | (He et al., 2015; Li et al., 2019)                     |
| KA006                               | 8-Prenylkaempferol                      | C <sub>20</sub> H <sub>18</sub> O <sub>6</sub>  | 5318624         | 354.4                   | (He et al., 2015; Kim et al., 2018; Li et al., 2019)   |
| KA007                               | Isoanhydroicaritin                      | C <sub>21</sub> H <sub>20</sub> O <sub>6</sub>  | 5322079         | 368.4                   | (He et al., 2015; Z. Yang et al., 2016)                |
| KA008                               | Sophoflavescenol                        | C <sub>21</sub> H <sub>20</sub> O <sub>6</sub>  | 9929189         | 368.4                   | (He et al., 2015)                                      |
| KA009                               | Resokaempferol                          | C <sub>15</sub> H <sub>10</sub> O <sub>5</sub>  | 5281611         | 270.24                  | (He et al., 2015)                                      |
| KA010                               | 8-Lavandulylkaempferol                  | C <sub>25</sub> H <sub>26</sub> O <sub>6</sub>  | 16083184        | 422.5                   | (He et al., 2015; Li et al., 2019)                     |
| KA011                               | 8-Lavandulyl-5,7,4'-trihydroxy-flavonol | C <sub>25</sub> H <sub>26</sub> O <sub>6</sub>  | NR #            | 422.5                   | (He et al., 2015)                                      |
| KA012                               | Citrusinol                              | C <sub>20</sub> H <sub>16</sub> O <sub>6</sub>  | 44259051        | 352.3                   | (He et al., 2015)                                      |
| KA013                               | Flavonochromane B                       | C <sub>25</sub> H <sub>26</sub> O <sub>6</sub>  | 273676818       | 422.5                   | (He et al., 2015)                                      |
| KA014                               | Flavonochromane C                       | C <sub>21</sub> H <sub>20</sub> O <sub>6</sub>  | 273676819       | 368.4                   | (He et al., 2015)                                      |
| KA015                               | Kaempferol                              | C <sub>15</sub> H <sub>10</sub> O <sub>6</sub>  | 5280863         | 286.24                  | (He et al., 2015; Lee et al., 2018)                    |
| KA016                               | Catechin                                | C <sub>15</sub> H <sub>14</sub> O <sub>6</sub>  | 9064            | 290.27                  | (Lee et al., 2018)                                     |
| KA017                               | Epicatechin                             | C <sub>15</sub> H <sub>14</sub> O <sub>6</sub>  | 72276           | 290.27                  | (Lee et al., 2018)                                     |
| KA018                               | Noranhydroicaritin                      | C <sub>20</sub> H <sub>18</sub> O <sub>6</sub>  | NR #            | 354.36                  | (Zhao, 2015)   |
| KA019                               | Lanceolarin                             | C <sub>27</sub> H <sub>30</sub> O <sub>14</sub> | 5492234         | 578.5                   | (Zhao, 2015)   |

| No.   | Derivatives and Constituents | Molecular Formula                              | PubChem CID/SID | Molecule Weight (g/mol) | References  |
|-------|------------------------------|--|-----------------|-------------------------|---|
| KA020 | Kushenol A                   | C <sub>25</sub> H <sub>28</sub> O <sub>5</sub> | 44563121        | 408.5                   | (Kim et al., 2017; Kim et al., 2018; Weng et al., 2018; Zhao, 2015)   |
| KA021 | Kushenol B                   | C <sub>30</sub> H <sub>36</sub> O <sub>6</sub> | 5318891         | 492.6                   | (He et al., 2015; Kim et al., 2017; Li et al., 2019)  |
| KA022 | Kushenol E                   | C <sub>25</sub> H <sub>28</sub> O <sub>6</sub> | 9979767         | 424.5                   | (He et al., 2015; Kim et al., 2017; Zhao, 2015)   |
| KA023 | Kushenol F                   | C <sub>25</sub> H <sub>28</sub> O <sub>6</sub> | 10455036        | 424.5                   | (He et al., 2015)   |
| KA024 | Kushenol P                   | C <sub>26</sub> H <sub>32</sub> O <sub>7</sub> | 10742453        | 456.5                   | (He et al., 2015; Zhao, 2015)   |
| KA025 | Kushenol Q                   | C <sub>25</sub> H <sub>30</sub> O <sub>7</sub> | NR #            | 442.51                  | (He et al., 2015; Li et al., 2019)  |
| KA026 | Kushenol R                   | C <sub>26</sub> H <sub>30</sub> O <sub>5</sub> | 42607847        | 422.5                   | (He et al., 2015; Li et al., 2019)  |
| KA027 | Kushenol S                   | C <sub>20</sub> H <sub>20</sub> O <sub>5</sub> | 10854625        | 340.4                   | (He et al., 2015; Li et al., 2019)  |
| KA028 | Kushenol T                   | C <sub>25</sub> H <sub>30</sub> O <sub>6</sub> | 10598514        | 426.5                   | (He et al., 2015; Li et al., 2019)  |
| KA029 | Kushenol U                   | C <sub>26</sub> H <sub>30</sub> O <sub>5</sub> | 42608062        | 422.5                   | (He et al., 2015; Li et al., 2019)  |
| KA030 | Kushenol V                   | C <sub>21</sub> H <sub>22</sub> O <sub>7</sub> | 10572194        | 386.4                   | (He et al., 2015)   |
| KA031 | Kushenol W                   | C <sub>21</sub> H <sub>22</sub> O <sub>7</sub> | 42608033        | 386.4                   | (He et al., 2015)   |
| KA032 | Kurarinone                   | C <sub>26</sub> H <sub>30</sub> O <sub>6</sub> | 11982640        | 438.5                   | (He et al., 2015; Q. Huang et al., 2017; Sun et al., 2017; Weng et al., 2018; Z. Yang et al., 2016; Q. Zhang, J. Yu, Y. Wang, et al., 2016; Zhao, 2015) |
| KA033 | 2'-methoxykurarinone         | C <sub>27</sub> H <sub>32</sub> O <sub>6</sub> | 133561937       | 452.5                   | (He et al., 2015; Li et al., 2019; Zhao, 2015)  |
| KA034 | Isokurarinone                | C <sub>26</sub> H <sub>30</sub> O <sub>6</sub> | 5318581         | 438.5                   | (He et al., 2015; Zhao, 2015)   |
| KA035 | Norkurarinone                | C <sub>25</sub> H <sub>28</sub> O <sub>6</sub> | 273580998       | 424.5                   | (He et al., 2015; Li et al., 2019; Zhao, 2015)  |
| KA036 | Kurarinol                    | C <sub>26</sub> H <sub>32</sub> O <sub>7</sub> | 44563198        | 456.5                   | (He et al., 2015; Q. Zhang, J. Yu, Y. Wang, et al., 2016; Zhao, 2015)   |
| KA037 | Neokurarinol                 | C <sub>27</sub> H <sub>34</sub> O <sub>7</sub> | 102090469       | 470.6                   | (He et al., 2015; Li et al., 2019)  |
| KA038 | Norkurarinol                 | C <sub>25</sub> H <sub>30</sub> O <sub>7</sub> | 44563159        | 442.5                   | (He et al., 2015; Li et al., 2019)  |

| No.   | Derivatives and Constituents  | Molecular Formula                              | PubChem CID/SID | Molecule Weight (g/mol) | References  |
|-------|---|--|-----------------|-------------------------|---|
| KA039 | Isoxanthohumol  | C <sub>21</sub> H <sub>22</sub> O <sub>5</sub> | 513197          | 354.4                   | (He et al., 2015; Q. Huang et al., 2017; Li et al., 2019; Sun et al., 2017; Z. Yang et al., 2016; Zhao, 2015)   |
| KA040 | Leachianone A   | C <sub>26</sub> H <sub>30</sub> O <sub>6</sub> | 44593449        | 438.5                   | (He et al., 2015)   |
| KA041 | Leachianone G   | C <sub>20</sub> H <sub>20</sub> O <sub>6</sub> | 5275227         | 356.4                   | (He et al., 2015)   |
| KA042 | Sophoraflavanone B  | C <sub>20</sub> H <sub>20</sub> O <sub>5</sub> | 252448649       | 340.4                   | (He et al., 2015; Li et al., 2019; Zhao, 2015)  |
| KA043 | 5-Methylsophoraflavanone B  | C <sub>21</sub> H <sub>22</sub> O <sub>5</sub> | 273518150       | 354.4                   | (He et al., 2015)   |
| KA044 | Sophoraflavanone G  | C <sub>25</sub> H <sub>28</sub> O <sub>6</sub> | 72936           | 424.5                   | (He et al., 2015; Q. Huang et al., 2017; Sun et al., 2017; Weng et al., 2018; Z. Yang et al., 2016; Zhao, 2015) |
| KA045 | Sophoraflavanone K  | C <sub>26</sub> H <sub>30</sub> O <sub>7</sub> | NR              | 454.5                   | (He et al., 2015; Zhao, 2015)   |
| KA046 | Sophoraflavanone L  | C <sub>25</sub> H <sub>28</sub> O <sub>6</sub> | 16083180        | 424.5                   | (He et al., 2015)   |
| KA047 | Naringenin  | C <sub>15</sub> H <sub>12</sub> O <sub>5</sub> | 932             | 272.25                  | (He et al., 2015)   |
| KA048 | Naringenin-7-O-β-D-glucosyl-4'-O-β-D-glucose  | NR   | NR              | NR                      | (He et al., 2015)   |
| KA049 | 5-Methoxy-7,2',4'-trihydroxy-8-[3,3-dimethylallyl]-flavanone                            | C <sub>21</sub> H <sub>22</sub> O <sub>6</sub> | NR #            | 370.4                   | (He et al., 2015)   |
| KA050 | (2S)-6-lavandulyl-isopentenyl-5-methoxy-7,2',4',-trihydroxy-flavonone                   | C <sub>25</sub> H <sub>28</sub> O <sub>6</sub> | NR #            | 424.5                   | (He et al., 2015)   |
| KA051 | (2S)-8-isopentenyl-7,2',4',-5-methoxyflavonone  | C <sub>21</sub> H <sub>22</sub> O <sub>6</sub> | NR #            | 370.4                   | (He et al., 2015)   |
| KA052 | (2S)-6[2(3-hydroxyisopropyl)-5-methyl-4-hexenyl]-5-methoxy-7,2',4'-trihydroxy flavanone | C <sub>26</sub> H <sub>32</sub> O <sub>7</sub> | NR #            | 456.54                  | (He et al., 2015)   |
| KA053 | (2S)-5, 4'-dimethoxy-8-lavandulyl-7,2'-dihydroxy flavanone                              | C <sub>27</sub> H <sub>32</sub> O <sub>6</sub> | NR #            | 452.55                  | (He et al., 2015)   |
| KA054 | (2S)-8-(5-hydroxy-2-isopropenyl-5-methylhexyl)-7-methoxy-5,2', 4'-trihydroxy-flavanone  | C <sub>26</sub> H <sub>32</sub> O <sub>7</sub> | NR #            | 456.54                  | (He et al., 2015)   |
| KA055 | (2S)-7,4'-dihydroxy-5-methoxy-8-(γ, γ-dimethylallyl)-flavanone                          | C <sub>21</sub> H <sub>22</sub> O <sub>5</sub> | NR #            | 354.4                   | (He et al., 2015)   |

| No.   | Derivatives and Constituents   | Molecular Formula                               | PubChem CID/SID | Molecule Weight (g/mol) | References   |
|-------|--|---|-----------------|-------------------------|--|
| KA056 | (2R)-3 $\alpha$ ,7,4'-trihydroxy-5-methoxy-8-( $\gamma,\gamma$ -dimethylallyl)-flavanone | C <sub>21</sub> H <sub>22</sub> O <sub>6</sub>  | NR #            | 370.4                   | (He et al., 2015)  |
| KA057 | (2S)-3 $\beta$ ,7,4'-trihydroxy-5-methoxy-8-( $\gamma,\gamma$ -dimethylallyl)-flavanone  | C <sub>21</sub> H <sub>22</sub> O <sub>6</sub>  | NR #            | 370.4                   | (He et al., 2015)  |
| KA058 | (2S)-7,2',4'-trihydroxy-5-methoxy-8-dimethylallylflavanone                               | C <sub>21</sub> H <sub>22</sub> O <sub>6</sub>  | NR #            | 370.4                   | (He et al., 2015)  |
| KA059 | 3 $\beta$ ,7,4'-Trihydroxy-5-methoxy-8-[3,3-dimethylallyl]-flavanone                     | C <sub>21</sub> H <sub>22</sub> O <sub>6</sub>  | NR #            | 370.4                   | (He et al., 2015)  |
| KA060 | 4'-Hydroxyisolonchocarpin  | C <sub>20</sub> H <sub>18</sub> O <sub>4</sub>  | 14353465        | 322.4                   | (He et al., 2015)  |
| KA061 | 5'-Hydroxy norkurarinol  | C <sub>25</sub> H <sub>28</sub> O <sub>8</sub>  | NR #            | 456.49                  | (Zhao, 2015)   |
| KA062 | 7,4''-Dihydroxy-8-(3-methylisobutanol)flavanone  | C <sub>20</sub> H <sub>20</sub> O <sub>5</sub>  | NR #            | 340.38                  | (Zhao, 2015)   |
| KA063 | 7-Hydroxy-3''-methoxy-isoflavone-7-primeveroside   | C <sub>27</sub> H <sub>30</sub> O <sub>13</sub> | NR              | 562.52                  | (Li et al., 2019)  |
| KA064 | Sophoraisoflavone C  | C <sub>30</sub> H <sub>34</sub> O <sub>5</sub>  | NR #            | 474.6                   | (Zhao, 2015)   |
| KA065 | Sophoraisoflavone D  | C <sub>30</sub> H <sub>34</sub> O <sub>6</sub>  | NR #            | 490.6                   | (Zhao, 2015)   |
| KA066 | Sophoraisoflavone A  | C <sub>20</sub> H <sub>16</sub> O <sub>6</sub>  | 10383349        | 352.3                   | (Wu, 2016; Zhao, 2015)   |
| KA067 | Kushenol J   | C <sub>32</sub> H <sub>41</sub> O <sub>18</sub> | NR #            | 713.66                  | (He et al., 2015; Zhao, 2015)  |
| KA068 | Kushenol H   | C <sub>26</sub> H <sub>32</sub> O <sub>8</sub>  | NR #            | 472.53                  | (He et al., 2015)  |
| KA069 | Kushenol I   | C <sub>25</sub> H <sub>28</sub> O <sub>7</sub>  | NR #            | 440.49                  | (He et al., 2015; R. Huang et al., 2017; Li et al., 2019; Q. Zhang, J. Yu, Y. Wang, et al., 2016)                    |
| KA070 | Kushenol K   | C <sub>26</sub> H <sub>32</sub> O <sub>8</sub>  | 5318897         | 472.5                   | (He et al., 2015)  |
| KA071 | Kushenol L   | C <sub>25</sub> H <sub>28</sub> O <sub>7</sub>  | 21721878        | 440.5                   | (He et al., 2015; Kim et al., 2017; Li et al., 2019; Zhao, 2015)   |
| KA072 | Kushenol M   | C <sub>30</sub> H <sub>36</sub> O <sub>7</sub>  | 180948          | 508.6                   | (He et al., 2015; Zhao, 2015)  |
| KA073 | Kushenol N   | C <sub>26</sub> H <sub>30</sub> O <sub>7</sub>  | 381851          | 454.5                   | (He et al., 2015; R. Huang et al., 2017; Li et al., 2019; Weng et al., 2018; Q. Zhang, J. Yu, Y. Wang, et al., 2016) |
| KA074 | Kushenol X   | C <sub>25</sub> H <sub>28</sub> O <sub>7</sub>  | 10599228        | 440.5                   | (He et al., 2015; Li et al., 2019)   |

| No.   | Derivatives and Constituents  | Molecular Formula                               | PubChem CID/SID | Molecule Weight (g/mol) | References  |
|-------|---|---|-----------------|-------------------------|---|
| KA075 | Kosamol A   | C <sub>30</sub> H <sub>38</sub> O <sub>8</sub>  | 275852942       | 526.6                   | (He et al., 2015)   |
| KA076 | (2R, 3R)-8-isopentenyl-7,4'-dihydroxy-5-methoxy-flavanonol                      | C <sub>21</sub> H <sub>22</sub> O <sub>6</sub>  | NR #            | 370.4                   | (He et al., 2015; Li et al., 2019)  |
| KA077 | (2R, 3R)-8-lavanduly-5,7,4'-trihydroxy-2'-methoxy-flavanonol                    | C <sub>26</sub> H <sub>30</sub> O <sub>7</sub>  | NR #            | 454.5                   | (He et al., 2015)   |
| KA078 | (2R, 3R)-8-isopentenyl-7,2',4'-trihydroxy-5-methoxy-flavanonol                  | C <sub>21</sub> H <sub>22</sub> O <sub>7</sub>  | NR #            | 386.4                   | (He et al., 2015)   |
| KA079 | Flavenochromane A   | C <sub>25</sub> H <sub>28</sub> O <sub>7</sub>  | 273676817       | 440.49                  | (He et al., 2015)   |
| KA080 | Formononetin  | C <sub>16</sub> H <sub>12</sub> O <sub>4</sub>  | 5280378         | 268.26                  | (He et al., 2015; Q. Huang et al., 2017; Kim et al., 2018; Li et al., 2019; Z. Yang et al., 2016) |
| KA081 | Daidzein  | C <sub>15</sub> H <sub>10</sub> O <sub>4</sub>  | 5281708         | 254.24                  | (He et al., 2015; Weng et al., 2018; Zhao, 2015)  |
| KA082 | Biochanin A   | C <sub>16</sub> H <sub>12</sub> O <sub>5</sub>  | 5280373         | 284.26                  | (He et al., 2015; Weng et al., 2018; Zhao, 2015)  |
| KA083 | 7-Methoxy-4'-hydroxyisoflavone  | C <sub>12</sub> H <sub>16</sub> O <sub>4</sub>  | NR #            | 224.26                  | (He et al., 2015)   |
| KA084 | 7,4'-Dihydroxy-3'-methoxyisoflavone   | C <sub>16</sub> H <sub>12</sub> O <sub>5</sub>  | 160709470       | 284.26                  | (He et al., 2015)   |
| KA085 | Calycosin   | C <sub>16</sub> H <sub>12</sub> O <sub>5</sub>  | 5280448         | 284.26                  | (He et al., 2015; Q. Huang et al., 2017; Sun et al., 2017; Zhao, 2015)                            |
| KA086 | Kushenol O  | C <sub>27</sub> H <sub>30</sub> O <sub>13</sub> | 44257224        | 562.5                   | (He et al., 2015; Li et al., 2019)  |
| KA087 | 3'-Hydroxykushenol O  | NR  | NR              | NR                      | (He et al., 2015)   |
| KA088 | Ononin  | C <sub>22</sub> H <sub>22</sub> O <sub>9</sub>  | 442813          | 430.4                   | (He et al., 2015)   |
| KA089 | Pseudobatigenin   | C <sub>16</sub> H <sub>10</sub> O <sub>5</sub>  | NR #            | 282.25                  | (He et al., 2015)   |
| KA090 | Pseudobatigenin-7-O-β-D-xylose-(1→6)-β-D-glucopyranoside                        | C <sub>27</sub> H <sub>24</sub> O <sub>14</sub> | NR #            | 576.51                  | (He et al., 2015)   |
| KA091 | Daidzein-7-O-β-D-xylose-(1→6)-β-D-glucopyranoside                               | C <sub>26</sub> H <sub>28</sub> O <sub>13</sub> | NR #            | 548.5                   | (He et al., 2015)   |
| KA092 | 3'-Methoxy-4'-hydroxyisoflavone-7-O-β-D-xylose-(1→6)-β-D-glucopyranoside        | C <sub>27</sub> H <sub>30</sub> O <sub>14</sub> | NR #            | 578.52                  | (He et al., 2015)   |
| KA093 | 3'-Hydroxy-4'-methoxyisoflavone-7-O-β-D-xylopyranosyl-(1→6)-β-D-glucopyranoside | C <sub>27</sub> H <sub>30</sub> O <sub>14</sub> | NR #            | 578.52                  | (He et al., 2015)   |

| No.   | Derivatives and Constituents  | Molecular Formula                               | PubChem CID/SID | Molecule Weight (g/mol) | References          |
|-------|---|---|-----------------|-------------------------|---------------------|
| KA094 | 3'-Hydroxy-4'-methoxyisoflavone-7-O-β-D-apiofuranosyl-(1→6)-β-D-glucopyranoside | C <sub>27</sub> H <sub>30</sub> O <sub>14</sub> | NR #            | 578.52                  | (He et al., 2015)   |
| KA095 | 3'-Methoxy-4'-hydroxyisoflavone-7-O-β-D-apiose-(1-6)-β-D-glucopyranoside        | C <sub>27</sub> H <sub>30</sub> O <sub>14</sub> | NR #            | 578.52                  | (He et al., 2015)   |
| KA096 | 4'-Hydroxy-3'-methoxyisoflavone-7-O-β-D-xylopyranosyl-(1→6)-β-D-glucopyranoside | C <sub>27</sub> H <sub>30</sub> O <sub>14</sub> | NR #            | 578.52                  | (He et al., 2015)   |
| KA097 | 4'-Hydroxy-3'-methoxyisoflavone-7-O-β-D-apiofuranosyl-(1→6)-β-D-glucopyranoside | C <sub>27</sub> H <sub>30</sub> O <sub>14</sub> | NR #            | 578.52                  | (He et al., 2015)   |
| KA098 | 4'-Hydroxyisoflavone-7-O-β-D-apiose-(1→6)-β-D-glucopyranoside                   | C <sub>26</sub> H <sub>28</sub> O <sub>13</sub> | NR #            | 548.5                   | (He et al., 2015)   |
| KA099 | 4'-Methoxyisoflavone-7-O-β-D-apiose-(1→6) - β-D-glucopyranoside                 | C <sub>27</sub> H <sub>30</sub> O <sub>13</sub> | NR #            | 562.52                  | (He et al., 2015)   |
| KA100 | 3',4'-Methylenedioxyisoflavone-7-O-β-D-apiofuranosyl-(1→6)-β-D-glucopyranoside  | C <sub>27</sub> H <sub>28</sub> O <sub>14</sub> | NR #            | 576.51                  | (He et al., 2015)   |
| KA101 | 3',4'-Dihydroxy-isoflavone-7-O-β-D-glucopyranoside                              | C <sub>21</sub> H <sub>20</sub> O <sub>10</sub> | NR #            | 632.38                  | (He et al., 2015)   |
| KA102 | 5-Hydroxy-4'-methoxyisoflavone-7-O-β-D-xylose-(1→6)-β-D-glucopyranoside         | C <sub>27</sub> H <sub>30</sub> O <sub>14</sub> | NR #            | 578.52                  | (He et al., 2015)   |
| KA103 | 5-Hydroxy-4'-methoxyisoflavone-7-O-β-D-apiose-(1→6)-β-D-glucopyranoside         | C <sub>27</sub> H <sub>30</sub> O <sub>14</sub> | NR #            | 578.52                  | (He et al., 2015)   |
| KA104 | 5'-Hydroxy-4'-methoxyisoflavone-2'-β-D-glucopyranoside                          | C <sub>22</sub> H <sub>22</sub> O <sub>12</sub> | NR #            | 478.41                  | (He et al., 2015)   |
| KA105 | 5,4'-Dihydroxy-isoflavone-7-O-β-D-xylose-(1→6)-β-D-glucopyranoside              | C <sub>26</sub> H <sub>28</sub> O <sub>14</sub> | NR #            | 564.5                   | (He et al., 2015)   |
| KA106 | Calycosin-7-glucoside   | C <sub>22</sub> H <sub>22</sub> O <sub>10</sub> | 71571502        | 446.4                   | (Weng et al., 2018) |
| KA107 | 4'-Hydroxyisoflavone-7-O-β-D-xylose-(1→6)-glucopyranoside                       | C <sub>26</sub> H <sub>28</sub> O <sub>13</sub> | NR #            | 548.5                   | (Zhao, 2015)        |
| KA108 | 5,7,2',5'-Tetrahydroxy-4'-methoxy-6-lavandulyl-8-(3-methyl-2-butene)-isoflavone | C <sub>31</sub> H <sub>38</sub> O <sub>7</sub>  | NR #            | 522.64                  | (Zhao, 2015)        |
| KA109 | 5,7,4'-Trihydroxy-3'-methoxy-6,5'-di(γ,γ-dimethylallyl)-isoflavone              | C <sub>26</sub> H <sub>30</sub> O <sub>6</sub>  | NR #            | 438.52                  | (Zhao, 2015)        |

| No.   | Derivatives and Constituents  | Molecular Formula                               | PubChem CID/SID | Molecule Weight (g/mol) | References   |
|-------|---|---|-----------------|-------------------------|--|
| KA110 | 5,7-Dimethoxy-4',5',-methylenedioxy-8,3'-di(3-methy-4-hydroxy-2-buten)flavanone | C <sub>28</sub> H <sub>32</sub> O <sub>6</sub>  | NR #            | 464.56                  | (Zhao, 2015)   |
| KA111 | 5-Methoxykushenol C   | NR  | NR              | NR                      | (Li et al., 2019)  |
| KA112 | 7-Hydroxy-3''-methoxyisoflavone-7-primeveroside                                 | NR  | NR              | NR                      | (Li et al., 2019)  |
| KA113 | Kakkanin  | C <sub>27</sub> H <sub>30</sub> O <sub>14</sub> | 273966287       | 578.5                   | (Zhao, 2015)   |
| KA114 | Orobol  | C <sub>15</sub> H <sub>10</sub> O <sub>6</sub>  | 5281801         | 286.24                  | (Zhao, 2015)   |
| KA115 | Pseudobatifigenin-7-O-β-D-apiofuranosyl-(1→6)-β-D-glucopyranosid                | C <sub>27</sub> H <sub>28</sub> O <sub>14</sub> | NR #            | 576.51                  | (Zhao, 2015)   |
| KA116 | Pseudobatioenin   | C <sub>16</sub> H <sub>12</sub> O <sub>5</sub>  | NR #            |                         | (Zhao, 2015)   |
| KA117 | 7-Hydroxy-4'-hydroxyisoflavonone-3'-O-β-D-glucopyranoside                       | NR  | NR              | NR                      | (He et al., 2015)  |
| KA118 | 2,3-Dihydroxy-4'-methoxyisoflavonone-7-O-β-D-xylose-(1→6)-β-D-glucopyranoside   | NR  | NR              | NR                      | (He et al., 2015)  |
| KA119 | 2,3-Dihydroxy-4'-methoxyisoflavonone-7-O-β-D-apiose-(1→6)-β-D-glucopyranoside   | NR  | NR              | NR                      | (He et al., 2015)  |
| KA120 | Medicarpin  | C <sub>16</sub> H <sub>14</sub> O <sub>4</sub>  | 336327          | 270.28                  | (Takahashi et al., 2016)   |
| KA121 | 5-Methoxy-isoflavone-7-O-β-D-glucopyranoside                                    | C <sub>22</sub> H <sub>22</sub> O <sub>9</sub>  | NR #            | 430.41                  | (Zhao, 2015)   |
| KA122 | 5-Methoxy-isoflavone-7-di-O-β-D-glucopyranoside                                 | C <sub>28</sub> H <sub>32</sub> O <sub>14</sub> | NR #            | 592.55                  | (Zhao, 2015)   |
| KA123 | Genistein-7-rutinoside  | NR  | NR              | NR                      | (Zhao, 2015)   |
| KA124 | 2,3,4'-Trihydroxy-homoisoflavone-7-O-β-D-glucopyranoside                        | NR  | NR              | NR                      | (He et al., 2015)  |
| KA125 | 2,3-Dihydroxy-4'-methoxyhomoisoflavone-7-O-xyloside                             | NR  | NR              | NR                      | (He et al., 2015)  |
| KA126 | 2',4-Dihydroxy-4',6'-dimethoxychalcone  | C <sub>17</sub> H <sub>16</sub> O <sub>5</sub>  | 277363800       | 300.3                   | (He et al., 2015)  |
| KA127 | Kuraridin   | C <sub>26</sub> H <sub>30</sub> O <sub>6</sub>  | 9954815         | 438.5                   | (He et al., 2015; Li et al., 2019; Sun et al., 2017; Z. Yang et al., 2016) |
| KA128 | Kuraridinol   | C <sub>26</sub> H <sub>32</sub> O <sub>7</sub>  | 5318880         | 456.5                   | (He et al., 2015; Li et al., 2019)   |
| KA129 | Kushenol D  | C <sub>27</sub> H <sub>32</sub> O <sub>6</sub>  | 5318893         | 452.5                   | (He et al., 2015; Li et al., 2019)   |
| KA130 | Xanthohumol   | C <sub>21</sub> H <sub>22</sub> O <sub>5</sub>  | 639665          | 354.4                   | (He et al., 2015; Li et al., 2019; Sun et al., 2017; Q. Wang et al., 2017) |

| No.   | Derivatives and Constituents   | Molecular Formula                               | PubChem CID/SID | Molecule Weight (g/mol) | References   |
|-------|--|---|-----------------|-------------------------|--|
| KA131 | Cyclokurarinidin   | C <sub>26</sub> H <sub>30</sub> O <sub>6</sub>  | 16083181        | 438.5                   | (He et al., 2015)  |
| KA132 | (Z)-4,2',4'-trihydroxy chalcone  | C <sub>15</sub> H <sub>12</sub> O <sub>4</sub>  | NR #            | 256.26                  | (He et al., 2015)  |
| KA133 | Sophflavone A  | C <sub>52</sub> H <sub>58</sub> O <sub>12</sub> | NR #            | 875.02                  | (He et al., 2015)  |
| KA134 | Sophflavone B  | C <sub>52</sub> H <sub>56</sub> O <sub>12</sub> | NR #            | 873.01                  | (He et al., 2015)  |
| KA135 | Kushecarpin A  | C <sub>17</sub> H <sub>18</sub> O <sub>6</sub>  | 272895690       | 318.32                  | (He et al., 2015)  |
| KA136 | Kushecarpin B  | C <sub>18</sub> H <sub>18</sub> O <sub>7</sub>  | 272895691       | 346.3                   | (He et al., 2015)  |
| KA137 | Kushecarpin C  | C <sub>17</sub> H <sub>16</sub> O <sub>7</sub>  | 272895692       | 332.3                   | (He et al., 2015)  |
| KA138 | Kushecarpin D  | C <sub>16</sub> H <sub>14</sub> O <sub>6</sub>  | 275167221       | 302.28                  | (He et al., 2015)  |
| KA139 | Maackiain  | C <sub>16</sub> H <sub>12</sub> O <sub>5</sub>  | 91510           | 284.26                  | (He et al., 2015; Q. Huang et al., 2017; Lee et al., 2018; Li et al., 2019; Takahashi et al., 2016; Weng et al., 2018; Zhao, 2015) |
| KA140 | 4-Methoxy-maackiain  | NR  | NR              | NR                      | (He et al., 2015)  |
| KA141 | Maackiain-7-O-β-D-apiose-(1→6)-β-D-glucopyranoside                                       | NR  | NR              | NR                      | (He et al., 2015)  |
| KA142 | Pterocarpin  | C <sub>17</sub> H <sub>14</sub> O <sub>5</sub>  | 1715306         | 298.29                  | (He et al., 2015)  |
| KA143 | 3-hydroxy-4-methoxy-8,9-methylenedioxypterocarpan  | NR  | NR              | NR                      | (He et al., 2015)  |
| KA144 | Trifolirhizin  | C <sub>22</sub> H <sub>22</sub> O <sub>10</sub> | 442827          | 446.4                   | (He et al., 2015; Q. Huang et al., 2017; Sun et al., 2017; Weng et al., 2018; Z. Yang et al., 2016)                                |
| KA145 | Trifolirhizin-6'-monoacetate   | C <sub>24</sub> H <sub>24</sub> O <sub>11</sub> | 44257443        | 488.4                   | (He et al., 2015; Q. Huang et al., 2017; Zhao, 2015)   |
| KA146 | Kushenin   | C <sub>16</sub> H <sub>14</sub> O <sub>5</sub>  | 5318889         | 286.28                  | (He et al., 2015)  |
| KA147 | Medicarpin-3-O-β-D-apiose-(1→6)-β-D- glucopyranoside                                     | NR  | NR              | NR                      | (He et al., 2015)  |
| KA148 | Sophoraflavanone M   | C <sub>20</sub> H <sub>20</sub> O <sub>5</sub>  | NR #            | 340.38                  | (Ma et al., 2019)  |
| KA149 | Sophoraflavanone N   | C <sub>25</sub> H <sub>28</sub> O <sub>5</sub>  | NR #            | 408.49                  | (Ma et al., 2019)  |
| KA150 | Glabranin  | C <sub>20</sub> H <sub>20</sub> O <sub>4</sub>  | 124049          | 324.4                   | (Ma et al., 2019)  |
| KA151 | (2S)-7-hydroxy-5-methoxy-8-prenylflavanone   | C <sub>21</sub> H <sub>22</sub> O <sub>4</sub>  | NR #            | 338.4                   | (Ma et al., 2019)  |
| KA152 | (2S)-8-[2-(3-hydroxyisopropyl)-5-methyl-4-hexenyl]-2'-methoxy-5,7,4'-trihydroxyflavanone | C <sub>26</sub> H <sub>32</sub> O <sub>7</sub>  | NR #            | 456.54                  | (Ma et al., 2019)  |

| No.       | Derivatives and Constituents                                   | Molecular Formula                               | PubChem CID/SID | Molecule Weight (g/mol) | References              |
|-----------|--|---|-----------------|-------------------------|-------------------------|
| KA153     | Leachianone B  | C <sub>26</sub> H <sub>30</sub> O <sub>6</sub>  | 15719490        | 438.5                   | (Ma et al., 2019)       |
| KA154     | 3,7-Dihydroxycoumarin  | C <sub>9</sub> H <sub>6</sub> O <sub>4</sub>    | 6918810         | 178.14                  | (R. Huang et al., 2017) |
| KA155     | 8-(3-Hydroxymethyl-2-butenyl)-5,7,2',4'-tetrahydroxy-flavanone | C <sub>20</sub> H <sub>20</sub> O <sub>7</sub>  | NR #            | 372.37                  | (R. Huang et al., 2017) |
| KA156     | 8-Lavandulyl-5,7,4'-trihydroxyflavonol                         | C <sub>25</sub> H <sub>26</sub> O <sub>6</sub>  | NR #            | 422.48                  | (Q. Huang et al., 2017) |
| KA157     | 8-Prenylnaringenin   | C <sub>20</sub> H <sub>20</sub> O <sub>5</sub>  | 480764          | 340.4                   | (Kim et al., 2018)      |
| KA158     | Luteolin   | C <sub>15</sub> H <sub>10</sub> O <sub>6</sub>  | 5280445         | 286.24                  | (Weng et al., 2018)     |
| KA159     | Daidzin  | C <sub>21</sub> H <sub>20</sub> O <sub>9</sub>  | 107971          | 416.4                   | (Weng et al., 2018)     |
| KA160     | Luteoloside  | C <sub>21</sub> H <sub>20</sub> O <sub>11</sub> | 162188761       | 448.4                   | (Weng et al., 2018)     |
| KA161     | Isoquercitrin  | C <sub>21</sub> H <sub>20</sub> O <sub>12</sub> | 5280804         | 464.4                   | (Weng et al., 2018)     |
| KA162     | Myricetin  | C <sub>15</sub> H <sub>10</sub> O <sub>8</sub>  | 5281672         | 318.23                  | (Weng et al., 2018)     |
| KA163     | (2R)-3 $\alpha$ ,7,4'-Trihydroxy-5-methoxy-8-prenylflavanone   | C <sub>21</sub> H <sub>22</sub> O <sub>6</sub>  | NR #            | 370.4                   | (R. Huang et al., 2017) |
| KA164     | (2R)-3 $\beta$ ,7,4'-Trihydroxy-5-methoxy-8-prenylflavanone    | C <sub>21</sub> H <sub>22</sub> O <sub>6</sub>  | NR #            | 370.4                   | (R. Huang et al., 2017) |
| KA165     | Shandougenines B   | C <sub>30</sub> H <sub>18</sub> O <sub>10</sub> | NR #            | 538.46                  | (R. Huang et al., 2017) |
| KA166     | Specionin  | C <sub>20</sub> H <sub>26</sub> O <sub>8</sub>  | 10982109        | 394.4                   | (R. Huang et al., 2017) |
| KA167     | 2'-Hydroxyisoxanthohumol                                       | C <sub>21</sub> H <sub>22</sub> O <sub>6</sub>  | NR              | 370.4                   | (Li et al., 2019)       |
| KA168     | Euchrestaflavanone A   | C <sub>25</sub> H <sub>28</sub> O <sub>5</sub>  | 484588          | 408.5                   | (Zhao, 2015)            |
| KA169     | Exiguaflavanone B  | C <sub>26</sub> H <sub>30</sub> O <sub>6</sub>  | 10455800        | 438.5                   | (Zhao, 2015)            |
| KA170     | Exiguaflavanone K  | C <sub>21</sub> H <sub>22</sub> O <sub>6</sub>  | 11036041        | 370.4                   | (Zhao, 2015)            |
| KA171     | Diosmetin  | C <sub>16</sub> H <sub>12</sub> O <sub>6</sub>  | 5281612         | 300.26                  | (Zhao, 2015)            |
| KA172     | 7,3'-Dihydroxy-4'-methoxyflavone                               | C <sub>16</sub> H <sub>12</sub> O <sub>5</sub>  | 5378220         | 284.26                  | (Zhao, 2015)            |
| KA173     | 6"-Apioside-genistin   | C <sub>26</sub> H <sub>28</sub> O <sub>14</sub> | NR #            | 564.5                   | (Zhao, 2015)            |
| KA174     | Kurarinol C  | C <sub>25</sub> H <sub>26</sub> O <sub>7</sub>  | NR #            | 438.48                  | (Zhao, 2015)            |
| KA175     | Kurarinol O  | C <sub>27</sub> H <sub>30</sub> O <sub>14</sub> | NR #            | 578.52                  | (Zhao, 2015)            |
| KA176     | Genistin   | C <sub>21</sub> H <sub>20</sub> O <sub>10</sub> | 5281377         | 432.4                   | (Zhao, 2015)            |
| KA177     | Genistein  | C <sub>15</sub> H <sub>10</sub> O <sub>5</sub>  | 5280961         | 270.24                  | (Zhao, 2015)            |
| KA178     | Desmethylxanthohumol   | C <sub>20</sub> H <sub>20</sub> O <sub>5</sub>  | 6443339         | 340.4                   | (Li et al., 2019)       |
| KA179     | Trifolirhizin-6"-O-malonate                                    | C <sub>25</sub> H <sub>24</sub> O <sub>13</sub> | 14841223        | 532.4                   | (Zhao, 2015)            |
| <b>KB</b> | <b>Alkaloids (n=50)</b>  |   |                 |                         |                         |

| No.   | Derivatives and Constituents                | Molecular Formula   | PubChem CID/SID | Molecule Weight (g/mol) | References  |
|-------|---|---|-----------------|-------------------------|---|
| KB001 | Matrine                                     | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O              | 91466           | 248.36                  | (Chen et al., 2017; Guan et al., 2015; Hao et al., 2017; He et al., 2015; Ji et al., 2017; Li et al., 2019; Sun et al., 2017; B. Wang et al., 2018; C. Wang et al., 2017; Wu et al., 2017; Wu, 2016; Y. Yang et al., 2016; R. Zhang et al., 2016; Zhang et al., 2015; Y. B. Zhang et al., 2016; D. Zhao et al., 2018) |
| KB002 | Isomatrine                                  | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O              | 5271984         | 248.36                  | (He et al., 2015)   |
| KB003 | (+)-Allomatrine                             | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O              | 7000681         | 248.36                  | (He et al., 2015)   |
| KB004 | Cis-neomatrine                              | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O              | 273503408       | 248.36                  | (He et al., 2015)   |
| KB005 | Trans-neomatrine                            | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O              | 273503409       | 248.36                  | (He et al., 2015)   |
| KB006 | (-)-9 $\alpha$ -Hydroxy-7,11-dehydromatrine | C <sub>15</sub> H <sub>22</sub> N <sub>2</sub> O <sub>2</sub> | NR #            | 262.35                  | (He et al., 2015)   |
| KB007 | Oxymatrine                                  | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O <sub>2</sub> | 114850          | 264.36                  | (Chen et al., 2017; Guan et al., 2015; Hao et al., 2017; He et al., 2015; Li et al., 2019; Sun et al., 2017; C. Wang et al., 2017; Wu, 2016; Y. Yang et al., 2016; Q. Zhang, J. Yu, L. Zhang, et al., 2016; Zhang et al., 2015; D. Zhao et al., 2018; Zhao, 2015)   |
| KB008 | (+)-9 $\alpha$ -Hydroxymatrine              | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O <sub>2</sub> | 103481335       | 264.36                  | (He et al., 2015; D. Zhao et al., 2018)   |
| KB009 | (-)-14 $\beta$ -Hydroxymatrine              | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O <sub>2</sub> | 274945414       | 264.36                  | (He et al., 2015)   |
| KB010 | (+)-Sophoranol                              | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O <sub>2</sub> | 12442899        | 264.36                  | (He et al., 2015; Ji et al., 2017; D. Zhao et al., 2018)  |
| KB011 | (+)-Sophoranol N-oxide                      | NR  | NR              | NR                      | (He et al., 2015)   |
| KB012 | (+)-Oxysophoranol N-oxide                   | NR  | NR              | NR                      | (He et al., 2015)   |
| KB013 | 13,14-Dehydroxysophoridine                  | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O              | NR #            | 248.36                  | (He et al., 2015)   |

| No.   | Derivatives and Constituents            | Molecular Formula   | PubChem CID/SID | Molecule Weight (g/mol) | References   |
|-------|---|---|-----------------|-------------------------|--|
| KB014 | (-)-Sophocarpine                        | C <sub>15</sub> H <sub>22</sub> N <sub>2</sub> O              | 115269          | 246.35                  | (He et al., 2015; Ji et al., 2017; Li et al., 2019; Sun et al., 2017; C. Wang et al., 2017; Wu et al., 2017; Zhang et al., 2015; D. Zhao et al., 2018; Zhao, 2015)       |
| KB015 | Oxysophocarpine                         | C <sub>15</sub> H <sub>22</sub> N <sub>2</sub> O <sub>2</sub> | 24721085        | 262.35                  | (He et al., 2015; Ji et al., 2017; Li et al., 2019; C. Wang et al., 2017; Q. Zhang, J. Yu, L. Zhang, et al., 2016; Zhang et al., 2015; D. Zhao et al., 2018; Zhao, 2015) |
| KB016 | Sophocarpine, N-oxide                   | C <sub>15</sub> H <sub>22</sub> N <sub>2</sub> O <sub>2</sub> | 250098840       | 262.35                  | (He et al., 2015)  |
| KB017 | (-)-9 $\alpha$ -Hydroxysophocarpine     | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O              | 355353482       | 248.36                  | (Li et al., 2019)  |
| KB018 | 9 $\alpha$ -Hydroxysophocarpine N-oxide | NR  | NR              | NR                      | (He et al., 2015)  |
| KB019 | (+)-12 $\alpha$ -Hydroxysophocarpine    | C <sub>15</sub> H <sub>22</sub> N <sub>2</sub> O <sub>2</sub> | 44408595        | 262.35                  | (He et al., 2015)  |
| KB020 | Sophoramine                             | C <sub>15</sub> H <sub>20</sub> N <sub>2</sub> O              | 169014          | 244.33                  | (He et al., 2015; Li et al., 2019; Sun et al., 2017)   |
| KB021 | (-)-13-Ethylsophoramine                 | NR  | NR              | NR                      | (He et al., 2015)  |
| KB022 | Tetrahydroneosophoramine                | NR  | NR              | NR                      | (He et al., 2015)  |
| KB023 | (-)-Cytisine                            | C <sub>11</sub> H <sub>14</sub> N <sub>2</sub> O              | 10235           | 190.24                  | (He et al., 2015; Li et al., 2019; Zhao, 2015)   |
| KB024 | N-Methylcytisine                        | C <sub>12</sub> H <sub>16</sub> N <sub>2</sub> O              | 670971          | 204.27                  | (He et al., 2015; Li et al., 2019; Sun et al., 2017; Zhang et al., 2015; Zhao, 2015)   |
| KB025 | (-)-Baptifoline                         | C <sub>15</sub> H <sub>20</sub> N <sub>2</sub> O <sub>2</sub> | 621307          | 260.33                  | (He et al., 2015; Li et al., 2019; Sun et al., 2017; Zhao, 2015)   |
| KB026 | (-)-Anagryne                            | C <sub>15</sub> H <sub>20</sub> N <sub>2</sub> O              | 10246           | 244.33                  | (He et al., 2015; Sun et al., 2017; D. Zhao et al., 2018; Zhao, 2015)  |
| KB027 | Flavascensine                           | C <sub>12</sub> H <sub>20</sub> N <sub>2</sub> O              | NR #            | 208.31                  | (He et al., 2015)  |
| KB028 | 2-Oxymatrine                            | C <sub>15</sub> H <sub>22</sub> N <sub>2</sub> O <sub>2</sub> | NR #            | 262.35                  | (Y. B. Zhang et al., 2016)   |

| No.       | Derivatives and Constituents       | Molecular Formula   | PubChem CID/SID | Molecule Weight (g/mol) | References   |
|-----------|------------------------------------|---|-----------------|-------------------------|--|
| KB029     | 13,14-Dehydromatrine               | C <sub>15</sub> H <sub>22</sub> N <sub>2</sub> O              | NR #            | 246.35                  | (Y. B. Zhang et al., 2016)   |
| KB030     | Flavesine A                        | C <sub>30</sub> H <sub>48</sub> N <sub>4</sub> O <sub>2</sub> | NR #            | 496.74                  | (Y. B. Zhang et al., 2016)   |
| KB031     | Flavesine B                        | C <sub>30</sub> H <sub>48</sub> N <sub>4</sub> O <sub>2</sub> | NR #            | 496.74                  | (Y. B. Zhang et al., 2016)   |
| KB032     | Flavesine C                        | C <sub>30</sub> H <sub>46</sub> N <sub>4</sub> O <sub>2</sub> | NR #            | 494.72                  | (Y. B. Zhang et al., 2016)   |
| KB033     | Flavesine D                        | C <sub>30</sub> H <sub>44</sub> N <sub>4</sub> O <sub>2</sub> | NR #            | 492.71                  | (Y. B. Zhang et al., 2016)   |
| KB034     | Flavesine E                        | C <sub>30</sub> H <sub>46</sub> N <sub>4</sub> O <sub>2</sub> | NR #            | 494.72                  | (Y. B. Zhang et al., 2016)   |
| KB035     | Flavesine F                        | C <sub>26</sub> H <sub>36</sub> N <sub>4</sub> O <sub>2</sub> | NR #            | 436.6                   | (Y. B. Zhang et al., 2016)   |
| KB036     | Sophoridine                        | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O              | 165549          | 248.36                  | (Ji et al., 2017; Sun et al., 2017; R. Zhang et al., 2016; Zhang et al., 2015; D. Zhao et al., 2018; Zhao, 2015) |
| KB037     | (+)-Cytisine                       | C <sub>11</sub> H <sub>14</sub> N <sub>2</sub> O              | NR              | 190.25                  | (Li et al., 2019)  |
| KB038     | 17β-Hydroxysophoridine             | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O <sub>2</sub> | NR #            | 264.36                  | (D. Zhao et al., 2018)   |
| KB039     | 7,11-Dehydromatrine                | C <sub>15</sub> H <sub>22</sub> N <sub>2</sub> O              | 5316459         | 246.35                  | (Li et al., 2019)  |
| KB040     | (+)-Epilamprolobine N-oxide        | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O <sub>3</sub> | 274291215       | 280.36                  | (Zhao, 2015)   |
| KB041     | Oxysophoridine                     | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O <sub>2</sub> | 7061140         | 264.36                  | (Li et al., 2019; Zhao, 2015)  |
| KB042     | Oxymamanine                        | C <sub>15</sub> H <sub>22</sub> N <sub>2</sub> O <sub>3</sub> | NR #            | 278.35                  | (Zhao, 2015)   |
| KB043     | (-)-Lehmannine N-oxide             | C <sub>15</sub> H <sub>22</sub> N <sub>2</sub> O <sub>2</sub> | NR #            | 262.35                  | (Zhao, 2015)   |
| KB044     | (+)-5α,9α-Dihydroxymatrine         | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O <sub>3</sub> | 50221581        | 280.36                  | (Zhao, 2015)   |
| KB045     | (+)-9β-Hydroxylamprolobine         | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O <sub>3</sub> | NR #            | 280.37                  | (Li et al., 2019; Zhao, 2015)  |
| KB046     | (+)-9β-Hydroxylamprolobine N-oxide | C <sub>15</sub> H <sub>25</sub> N <sub>2</sub> O <sub>4</sub> | NR #            | 296.37                  | (Zhao, 2015)   |
| KB047     | Mamanine                           | C <sub>15</sub> H <sub>22</sub> N <sub>2</sub> O <sub>2</sub> | 323274          | 262.35                  | (Zhao, 2015)   |
| KB048     | (+)-Sophoranol N-oxide             | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O <sub>3</sub> | NR              | 280.37                  | (Li et al., 2019; Zhao, 2015)  |
| KB049     | 5α,9α-Isodihydroxymatrine          | C <sub>15</sub> H <sub>24</sub> N <sub>2</sub> O <sub>3</sub> | NR              | 280.37                  | (Li et al., 2019)  |
| KB050     | Liriodenine                        | C <sub>17</sub> H <sub>9</sub> NO <sub>3</sub>                | 10144           | 275.26                  | (Zhao, 2015)   |
| <b>KC</b> | <b>Terpenoids (n=10)</b>           |   |                 |                         |  |
| KC001     | Lupeol                             | C <sub>30</sub> H <sub>50</sub> O                             | 259846          | 426.7                   | (He et al., 2015)  |
| KC002     | Lupenone                           | C <sub>30</sub> H <sub>48</sub> O                             | 92158           | 424.7                   | (He et al., 2015)  |
| KC003     | Monogynol B                        | C <sub>30</sub> H <sub>50</sub> O                             | NR #            | 426.7                   | (He et al., 2015)  |
| KC004     | β-Amyrenol                         | C <sub>30</sub> H <sub>50</sub> O                             | 73145           | 426.7                   | (He et al., 2015)  |
| KC005     | Soyasaponin I                      | C <sub>48</sub> H <sub>78</sub> O <sub>18</sub>               | 122097          | 943.1                   | (He et al., 2015)  |

| No.       | Derivatives and Constituents        | Molecular Formula                               | PubChem CID/SID | Molecule Weight (g/mol) | References            |
|-----------|-------------------------------------|---|-----------------|-------------------------|-----------------------|
| KC006     | Sophoraflavoside I                  | C <sub>59</sub> H <sub>96</sub> O <sub>27</sub> | 274478437       | 1237.4                  | (He et al., 2015)     |
| KC007     | Sophoraflavoside II                 | C <sub>48</sub> H <sub>76</sub> O <sub>20</sub> | 274198996       | 973.1                   | (He et al., 2015)     |
| KC008     | Sophoraflavoside III                | C <sub>53</sub> H <sub>84</sub> O <sub>24</sub> | 274198997       | 1105.2                  | (He et al., 2015)     |
| KC009     | Sophoraflavoside IV                 | C <sub>59</sub> H <sub>94</sub> O <sub>29</sub> | 135229963       | 1267.4                  | (He et al., 2015)     |
| KC010     | Sophopterocarpan A                  | C <sub>16</sub> H <sub>16</sub> O <sub>6</sub>  | 355426221       | 304.29                  | (H. Zhu et al., 2017) |
| <b>KD</b> | <b>Lignans (n=3)</b>                |   |                 |                         |                       |
| KD001     | Citrusin A                          | C <sub>26</sub> H <sub>34</sub> O <sub>12</sub> | 131752579       | 538.5                   | (He et al., 2015)     |
| KD002     | Citrusin B                          | C <sub>27</sub> H <sub>36</sub> O <sub>13</sub> | 131752580       | 568.6                   | (He et al., 2015)     |
| KD003     | Alaschanioside A                    | NR  | NR              | NR                      | (He et al., 2015)     |
| <b>KE</b> | <b>Dibenzoyl derivatives (n=12)</b> |   |                 |                         |                       |
| KE001     | Sophodibenzoside A                  | C <sub>26</sub> H <sub>30</sub> O <sub>15</sub> | 275217506       | 582.5                   | (He et al., 2015)     |
| KE002     | Sophodibenzoside B                  | C <sub>26</sub> H <sub>30</sub> O <sub>15</sub> | 275217507       | 582.5                   | (He et al., 2015)     |
| KE003     | Sophodibenzoside C                  | C <sub>21</sub> H <sub>22</sub> O <sub>11</sub> | NR #            | 450.4                   | (He et al., 2015)     |
| KE004     | Sophodibenzoside D                  | C <sub>26</sub> H <sub>30</sub> O <sub>14</sub> | NR #            | 566.51                  | (He et al., 2015)     |
| KE005     | Sophodibenzoside E                  | C <sub>26</sub> H <sub>30</sub> O <sub>14</sub> | NR #            | 566.51                  | (He et al., 2015)     |
| KE006     | Sophodibenzoside F                  | C <sub>21</sub> H <sub>22</sub> O <sub>10</sub> | NR #            | 434.4                   | (He et al., 2015)     |
| KE007     | Sophodibenzoside G                  | C <sub>26</sub> H <sub>28</sub> O <sub>15</sub> | NR #            | 580.5                   | (He et al., 2015)     |
| KE008     | Sophodibenzoside H                  | C <sub>26</sub> H <sub>28</sub> O <sub>15</sub> | NR #            | 580.5                   | (He et al., 2015)     |
| KE009     | Sophodibenzoside I                  | C <sub>21</sub> H <sub>20</sub> O <sub>11</sub> | NR #            | 448.38                  | (He et al., 2015)     |
| KE010     | Sophodibenzoside J                  | C <sub>26</sub> H <sub>30</sub> O <sub>15</sub> | NR #            | 582.51                  | (He et al., 2015)     |
| KE011     | Sophodibenzoside K                  | C <sub>21</sub> H <sub>22</sub> O <sub>11</sub> | NR #            | 450.4                   | (He et al., 2015)     |
| KE012     | Sophodibenzoside L                  | C <sub>25</sub> H <sub>28</sub> O <sub>15</sub> | NR #            | 568.48                  | (He et al., 2015)     |
| <b>KF</b> | <b>Phenolic acids (n=7)</b>         |   |                 |                         |                       |
| KF001     | 2,4-Dihydroxy benzoic acid          | C <sub>7</sub> H <sub>6</sub> O <sub>4</sub>    | 1491            | 154.12                  | (He et al., 2015)     |
| KF002     | T-cinnamic acid                     | C <sub>9</sub> H <sub>8</sub> O <sub>2</sub>    | 444539          | 148.16                  | (Lee et al., 2018)    |
| KF003     | Benzoic acid                        | C <sub>7</sub> H <sub>6</sub> O <sub>2</sub>    | 243             | 122.12                  | (Lee et al., 2018)    |
| KF004     | P-coumaric acid                     | C <sub>9</sub> H <sub>8</sub> O <sub>3</sub>    | 637542          | 164.16                  | (Lee et al., 2018)    |
| KF005     | Caffeic acid                        | C <sub>9</sub> H <sub>8</sub> O <sub>4</sub>    | 689043          | 180.16                  | (Lee et al., 2018)    |
| KF006     | Ferulic acid                        | C <sub>10</sub> H <sub>10</sub> O <sub>4</sub>  | 445858          | 194.18                  | (Lee et al., 2018)    |
| KF007     | Chlorogenic acid                    | C <sub>16</sub> H <sub>18</sub> O <sub>9</sub>  | 1794427         | 354.31                  | (Lee et al., 2018)    |

| No.       | Derivatives and Constituents | Molecular Formula                               | PubChem CID/SID | Molecule Weight (g/mol) | References                                |
|-----------|------------------------------|---|-----------------|-------------------------|---|
| <b>KG</b> | <b>Saponins (n=1)</b>        |   |                 |                         |   |
| KG001     | Kaikasaponin II              | C <sub>48</sub> H <sub>78</sub> O <sub>17</sub> | 273966286       | 927.1                   | (Zhao, 2015)                              |
| <b>KH</b> | <b>Fatty acids (n=1)</b>     |   |                 |                         |   |
| KH001     | Tetracosanoic acid           | C <sub>24</sub> H <sub>48</sub> O <sub>2</sub>  | 11197           | 368.6                   | (He et al., 2015)                         |
| <b>KI</b> | <b>Coumarins (n=1)</b>       |   |                 |                         |   |
| KI001     | Umbelliferone                | C <sub>9</sub> H <sub>6</sub> O <sub>3</sub>    | 5281426         | 162.14                  | (He et al., 2015)                         |
| <b>KJ</b> | <b>Quinones (n=1)</b>        |   |                 |                         |   |
| KJ001     | Kushequinone A               | C <sub>17</sub> H <sub>22</sub> O <sub>4</sub>  | NR #            | 290.36                  | (He et al., 2015)                         |
| <b>KK</b> | <b>Sterols (n=1)</b>         |   |                 |                         |   |
| KK001     | β-Sitosterol                 | C <sub>29</sub> H <sub>50</sub> O               | 222284          | 414.7                   | (He et al., 2015)                         |
| <b>KL</b> | <b>Polysaccharides (n=7)</b> |   |                 |                         |   |
| KL001     | SF1                          | NR  | NR              | NR                      | (Q. Zhang, J. Yu, L. Zhang, et al., 2016) |
| KL002     | SF2                          | NR  | NR              | NR                      | (Q. Zhang, J. Yu, L. Zhang, et al., 2016) |
| KL003     | SF3                          | NR  | NR              | NR                      | (Q. Zhang, J. Yu, L. Zhang, et al., 2016) |
| KL004     | SF4                          | NR  | NR              | NR                      | (Q. Zhang, J. Yu, L. Zhang, et al., 2016) |
| KL005     | SFP-100-A                    | NR  | NR              | NR                      | (Chen et al., 2018)                       |
| KL006     | SFP-100-B                    | NR  | NR              | NR                      | (Chen et al., 2018)                       |
| KL007     | SFP-100-C                    | NR  | NR              | NR                      | (Chen et al., 2018)                       |
| <b>KM</b> | <b>Elements (n=4)</b>        |   |                 |                         |   |
| KM001     | Cadmium                      | Cd  | 23973           | 112.41                  | (Liu et al., 2018)                        |
| KM002     | Copper                       | Cu  | 23978           | 63.55                   | (Liu et al., 2018)                        |
| KM003     | Lead                         | Pb  | 5352425         | 207.2                   | (Liu et al., 2018)                        |
| KM004     | Zinc                         | Zn  | 23994           | 65.38                   | (Liu et al., 2018)                        |

Note: NR: Not reported; Corresponding molecular structures refer to PubChem and Supplementary Figs. S1 to S3 (#) This table was retrieved from our published thesis. Li, H. (2020). *Clinical applications and mechanisms of action of Danggui Beimu Kushen Wan on the targets and pathways implicated in prostate cancer: Literature reviews and computational analyses* [Doctoral dissertation, RMIT University]. RMIT Research Repository. Identification data of each compound, such as LC-MS, HPLC and UPLC-CAD, could refer to corresponding references.

**Supplementary Table S2. Details of identified anti-cancer drugs from 2019 National Comprehensive Cancer Network Clinical Practice Guideline-Prostate Cancer and their drug targets.**

| <b>Treatments and Drug Names</b>       | <b>Drug Targets</b>                                |
|--|--|
| <b>1. Androgen deprivation therapy</b> |  |
| Goserelin                              | LHCGR, GNRHR                                       |
| Histrelin                              | GNRHR  |
| Leuprolide                             | GNRHR  |
| Triptorelin                            | GNRHR  |
| Nilutamide                             | AR   |
| Flutamide                              | AR, AHR, NR1I2                                     |
| Bicalutamide                           | AR   |
| Degarelix                              | GNRHR  |
| Abiraterone                            | CYP17A1  |
| Apalutamide                            | AR   |
| Enzalutamide                           | AR   |
| Ketoconazole                           | AR, CYP17A1, CYP21A2, CYP19A1, KCHN2, NR1I2, NR1I3 |
| <b>2. Chemotherapy</b>                 |  |
| Docetaxel                              | TUBB1, BCL2, MAP2, MAP4, MAPT, NR1I2               |
| Cabazitaxel                            | TUBA4A, TUBB1                                      |
| <b>3. Immunotherapy</b>                |  |
| Sipuleucel-T                           | ACPP   |
| Pembrolizumab                          | PDCD1  |
| <b>4. Bone health</b>                  |  |
| Denosumab                              | TNFSF11  |
| Zoledronic acid                        | FDPS, GGPS1  |

Note: ACPP: Acid phosphatase prostate; AHR: Aryl hydrocarbon receptor; AR: Androgen receptor; BCL2: B-cell lymphoma-2; CYP17A1: Cytochrome P450 family 17 subfamily A member 1; CYP21A2: Cytochrome P450 family 21 subfamily A member 2; CYP19A1: Cytochrome P450 family 19 subfamily A member 1; FDPS: Farnesyl diphosphate synthase; GGPS1: Geranylgeranyl diphosphate synthase 1; GNRHR: Gonadotropin releasing hormone receptor; KCNH2: Potassium voltage-gated channel subfamily H member 2; LHCGR: Luteinising hormone/choriogonadotropin receptor; MAP2: Microtubule associated protein 2; MAP4: Microtubule associated protein 4; MAPT: Microtubule associated protein tau; NR1I2: Nuclear receptor subfamily 1 group I member 2; NR1I3: Nuclear receptor subfamily 1 group I member 3; PDCD1: Programmed cell death 1; TNFSF11: Tumour necrosis factor superfamily member 11; TUBA4A: Tubulin alpha 4a; TUBB1: Tubulin beta 1 class VI. Targets were identified from the 2019 National Comprehensive Cancer Network Clinical Practice Guideline-Prostate Cancer (National Comprehensive Cancer Network, 2019).

## Supplementary Table S3. Summary of Kyoto Encyclopedia of Genes and Genomes

### enrichment of the included targets.

| KEGG Term   | p-value  | Genes   | Category of KEGG Term               |
|---|----------|---|-------------------------------------|
| Small cell lung cancer                                | 1.08e-09 | CASP3; PTEN;<br>BCL2; BAX; PTGS2;<br>TP53                 | 6.2 Cancer: specific types          |
| Pathways in cancer                                    | 5.52e-09 | AR; CASP3; PTEN;<br>BCL2; BAX; PTGS2;<br>HIF1A; TP53; IL2 | 6.1 Cancer: overview                |
| Measles   | 1.18e-08 | CASP3; IL1B; BCL2;<br>BAX; TP53; IL2                      | 6.9 Infectious disease: viral       |
| p53 signalling pathway                                | 2.12e-08 | CASP3; PTEN;<br>BCL2; BAX; TP53                           | 4.2 Cell growth and death           |
| Kaposi sarcoma-associated herpesvirus infection       | 6.99e-08 | CASP3; BAX;<br>PTGS2; HIF1A;<br>TP53; ICAM1               | 6.9 Infectious disease: viral       |
| Nuclear factor-kappa signalling pathway               | 8.60e-08 | IL1B; BCL2;<br>TNFSF11; PTGS2;<br>ICAM1                   | 3.2 Signal transduction             |
| AGE-RAGE signalling pathway in diabetic complications | 1.11e-07 | CASP3; IL1B; BCL2;<br>BAX; ICAM1                          | 6.7 Endocrine and metabolic disease |
| Human T-cell leukemia virus 1 infection               | 1.84e-07 | FDPS; PTEN; BAX;<br>TP53; IL2; ICAM1                      | 6.9 Infectious disease: viral       |
| Ovarian steroidogenesis                               | 3.26e-07 | LHCGR; PTGS2;<br>CYP19A1; CYP17A1                         | 5.2 Endocrine system                |
| Amyotrophic lateral sclerosis                         | 3.84e-07 | CASP3; BCL2; BAX;<br>TP53                                 | 6.4 Neurodegenerative disease       |
| Apoptosis   | 6.64e-07 | CASP3; BCL2; BAX;<br>TP53; TUBA4A                         | 4.2 Cell growth and death           |
| Colorectal cancer                                     | 3.17e-06 | CASP3; BCL2; BAX;<br>TP53                                 | 6.2 Cancer: specific types          |
| Epstein–Barr virus infection                          | 3.55e-06 | CASP3; BCL2; BAX;<br>TP53; ICAM1                          | 6.9 Infectious disease: viral       |
| Prostate cancer                                       | 5.13e-06 | AR; PTEN; BCL2;<br>TP53                                   | 6.2 Cancer: specific types          |
| Human cytomegalovirus infection                       | 6.15e-06 | CASP3; IL1B; BAX;<br>PTGS2; TP53                          | 6.9 Infectious disease: viral       |
| Th17 cell differentiation                             | 7.58e-06 | IL1B; AHR; HIF1A;<br>IL2                                  | 5.1 Immune system                   |
| TNF signalling pathway                                | 8.45e-06 | CASP3; IL1B;<br>PTGS2; ICAM1                              | 3.2 Signal transduction             |
| Sphingolipid signalling pathway                       | 1.15e-05 | PTEN; BCL2; BAX;<br>TP53                                  | 3.2 Signal transduction             |
| Fluid shear stress and atherosclerosis                | 2.13e-05 | IL1B; BCL2; TP53;<br>ICAM1                                | 6.6 Cardiovascular disease          |
| MicroRNAs in cancer                                   | 2.43e-05 | CASP3; PTEN;<br>BCL2; PTGS2; TP53                         | 6.1 Cancer: overview                |
| Breast cancer   | 2.65e-05 | PTEN; BAX;<br>TNFSF11; TP53                               | 6.2 Cancer: specific types          |

| <b>KEGG Term</b>                          | <b>p-value</b> | <b>Genes</b>                  | <b>Category of KEGG Term</b>                 |
|---|----------------|-------------------------------|--|
| Human papillomavirus infection            | 3.90e-05       | CASP3; PTEN; BAX; PTGS2; TP53 | 6.9 Infectious disease: viral                |
| Hepatitis B                               | 3.98e-05       | CASP3; BCL2; BAX; TP53        | 6.9 Infectious disease: viral                |
| Endometrial cancer                        | 4.49e-05       | PTEN; BAX; TP53               | 6.2 Cancer: specific types                   |
| Steroid hormone biosynthesis              | 4.97e-05       | CYP21A2; CYP19A1; CYP17A1     | 1.3 Lipid metabolism                         |
| Tuberculosis                              | 5.73e-05       | CASP3; IL1B; BCL2; BAX        | 6.8 Infectious disease: bacterial            |
| Central carbon metabolism in cancer       | 6.32e-05       | PTEN; HIF1A; TP53             | 6.1 Cancer: overview                         |
| Prolactin signalling pathway              | 7.88e-05       | LHCGR; TNFSF11; CYP17A1       | 5.2 Endocrine system                         |
| Melanoma                                  | 8.58e-05       | PTEN; BAX; TP53               | 6.2 Cancer: specific types                   |
| Glioma                                    | 9.69e-05       | PTEN; BAX; TP53               | 6.2 Cancer: specific types                   |
| Rheumatoid arthritis                      | 1.72e-04       | IL1B; TNFSF11; ICAM1          | 6.3 Immune disease                           |
| IL-17 signalling pathway                  | 1.84e-04       | CASP3; IL1B; PTGS2            | 5.1 Immune system                            |
| Herpes simplex virus 1 infection          | 2.55e-04       | CASP3; IL1B; BCL2; BAX; TP53  | 6.9 Infectious disease: viral                |
| C-type lectin receptor signalling pathway | 2.55e-04       | IL1B; PTGS2; IL2              | 5.1 Immune system                            |
| Terpenoid backbone biosynthesis           | 3.14e-04       | FDPS; GGPS1                   | 1.9 Metabolism of terpenoids and polyketides |
| Neurotrophin signalling pathway           | 3.79e-04       | BCL2; BAX; TP53               | 5.6 Nervous system                           |
| Autophagy                                 | 4.70e-04       | PTEN; BCL2; HIF1A             | 4.1 Transport and catabolism                 |
| Non-alcoholic fatty liver disease         | 7.31e-04       | CASP3; IL1B; BAX              | 6.7 Endocrine and metabolic disease          |
| Gastric cancer                            | 7.31e-04       | BCL2; BAX; TP53               | 6.2 Cancer: specific types                   |
| PI3K-Akt signalling pathway               | 7.75e-04       | PTEN; BCL2; TP53; IL2         | 3.2 Signal transduction                      |
| Prion diseases                            | 8.01e-04       | IL1B; BAX                     | 6.4 Neurodegenerative disease                |
| Hepatitis C                               | 8.20e-04       | CASP3; BAX; TP53              | 6.9 Infectious disease: viral                |
| Cushing syndrome                          | 8.20e-04       | CYP21A2; AHR; CYP17A1         | 6.7 Endocrine and metabolic disease          |
| Thyroid cancer                            | 8.96e-04       | BAX; TP53                     | 6.2 Cancer: specific types                   |
| African trypanosomiasis                   | 8.96e-04       | IL1B; ICAM1                   | 6.10 Infectious disease: parasitic           |
| Necroptosis                               | 9.32e-04       | IL1B; BCL2; BAX               | 4.2 Cell growth and death                    |
| Hepatocellular carcinoma                  | 1.03e-03       | PTEN; BAX; TP53               | 6.2 Cancer: specific types                   |
| Influenza A                               | 1.09e-03       | FDPS; IL1B; ICAM1             | 6.9 Infectious disease: viral                |
| Graft-versus-host disease                 | 1.10e-03       | IL1B; IL2                     | 6.3 Immune disease                           |
| Type I diabetes mellitus                  | 1.21e-03       | IL1B; IL2                     | 6.7 Endocrine and metabolic disease          |
| Huntington disease                        | 1.54e-03       | CASP3; BAX; TP53              | 6.4 Neurodegenerative disease                |
| Malaria                                   | 1.57e-03       | IL1B; ICAM1                   | 6.10 Infectious disease: parasitic           |
| Proteoglycans in cancer                   | 1.73e-03       | CASP3; HIF1A; TP53            | 6.1 Cancer: overview                         |
| Viral carcinogenesis                      | 1.73e-03       | CASP3; BAX; TP53              | 6.1 Cancer: overview                         |

| <b>KEGG Term</b>                                    | <b>p-value</b> | <b>Genes</b>       | <b>Category of KEGG Term</b>             |
|---|----------------|--------------------|--|
| Pathogenic Escherichia coli infection               | 1.97e-03       | TUBB1; TUBA4A      | 6.8 Infectious disease: bacterial        |
| Legionellosis                                       | 1.97e-03       | CASP3; IL1B        | 6.8 Infectious disease: bacterial        |
| Human immunodeficiency virus 1 infection            | 2.02e-03       | CASP3; BCL2; BAX   | 6.9 Infectious disease: viral            |
| Viral myocarditis                                   | 2.26e-03       | CASP3; ICAM1       | 6.6 Cardiovascular disease               |
| Basal cell carcinoma                                | 2.58e-03       | BAX; TP53          | 6.2 Cancer: specific types               |
| Mitophagy   | 2.74e-03       | HIF1A; TP53        | 4.1 Transport and catabolism             |
| Inflammatory bowel disease                          | 2.74e-03       | IL1B; IL2          | 6.3 Immune disease                       |
| Cortisol synthesis and secretion                    | 2.74e-03       | CYP21A2; CYP17A1   | 5.2 Endocrine system                     |
| Non-small cell lung cancer                          | 2.82e-03       | BAX; TP53          | 6.2 Cancer: specific types               |
| Leishmaniasis                                       | 3.54e-03       | IL1B; PTGS2        | 6.10 Infectious disease: parasitic       |
| Pancreatic cancer                                   | 3.63e-03       | BAX; TP53          | 6.2 Cancer: specific types               |
| Pertussis   | 3.73e-03       | CASP3; IL1B        | 6.8 Infectious disease: bacterial        |
| Chronic myeloid leukemia                            | 3.73e-03       | BAX; TP53          | 6.2 Cancer: specific types               |
| Gap junction  | 4.96e-03       | TUBB1; TUBA4A      | 4.3 Cellular community - eukaryotes      |
| Cytokine-cytokine receptor interaction              | 5.06e-03       | IL1B; TNFSF11; IL2 | 3.3 Signalling molecules and interaction |
| MAPK signalling pathway                             | 5.11e-03       | CASP3; IL1B; TP53  | 3.2 Signal transduction                  |
| Amoebiasis  | 5.87e-03       | CASP3; IL1B        | 6.10 Infectious disease: parasitic       |
| HIF-1 signalling pathway                            | 6.36e-03       | BCL2; HIF1A        | 3.2 Signal transduction                  |
| T cell receptor signalling pathway                  | 6.48e-03       | PDCD1; IL2         | 5.1 Immune system                        |
| Longevity regulating pathway                        | 6.61e-03       | BAX; TP53          | 5.9 Aging                                |
| Chagas disease (American trypanosomiasis)           | 6.73e-03       | IL1B; IL2          | 6.10 Infectious disease: parasitic       |
| Parathyroid hormone synthesis, secretion and action | 7.12e-03       | BCL2; TNFSF11      | 5.2 Endocrine system                     |
| Serotonergic synapse                                | 8.05e-03       | CASP3; PTGS2       | 5.6 Nervous system                       |
| Toxoplasmosis                                       | 8.05e-03       | CASP3; BCL2        | 6.10 Infectious disease: parasitic       |
| Thyroid hormone signalling pathway                  | 8.47e-03       | HIF1A; TP53        | 5.2 Endocrine system                     |
| Osteoclast differentiation                          | 1.01e-02       | IL1B; TNFSF11      | 5.8 Development and regeneration         |
| Natural killer cell mediated cytotoxicity           | 1.07e-02       | CASP3; ICAM1       | 5.1 Immune system                        |
| Cell adhesion molecules                             | 1.30e-02       | PDCD1; ICAM1       | 3.3 Signalling molecules and interaction |
| Phagosome   | 1.42e-02       | TUBB1; TUBA4A      | 4.1 Transport and catabolism             |
| Cellular senescence                                 | 1.56e-02       | PTEN; TP53         | 4.2 Cell growth and death                |
| JAK-STAT signalling pathway                         | 1.60e-02       | BCL2; IL2          | 3.2 Signal transduction                  |
| Protein processing in endoplasmic reticulum         | 1.66e-02       | BCL2; BAX          | 2.3 Folding, sorting and degradation     |

| <b>KEGG Term</b>                        | <b>p-value</b> | <b>Genes</b> | <b>Category of KEGG Term</b>        |
|---|----------------|--------------|-------------------------------------|
| Alzheimer disease                       | 1.77e-02       | CASP3; IL1B  | 6.4 Neurodegenerative disease       |
| NOD-like receptor signalling pathway    | 1.91e-02       | IL1B; BCL2   | 5.1 Immune system                   |
| Transcriptional misregulation in cancer | 2.08e-02       | BAX; TP53    | 6.1 Cancer: overview                |
| Focal adhesion                          | 2.35e-02       | PTEN; BCL2   | 4.3 Cellular community - eukaryotes |
| Allograft rejection                     | 4.46e-02       | IL2          | 6.3 Immune disease                  |
| Ferroptosis                             | 4.69e-02       | TP53         | 4.2 Cell growth and death           |
| Bladder cancer                          | 4.81e-02       | TP53         | 6.2 Cancer: specific types          |

Note: AR: Androgen receptor; BAX: B-cell lymphoma-2 associated X; BCL2: B-cell lymphoma-2; CASP3: Caspase 3; CYP17A1: Cytochrome P450 family 17 subfamily A member 1; CYP21A2: Cytochrome P450 family 21 subfamily A member 2; CYP19A1: Cytochrome P450 family 19 subfamily A member 1; FDPS: Farnesyl diphosphate synthase; GGPS1: Geranylgeranyl diphosphate synthase1; GNRHR: Gonadotropin releasing hormone receptor; HIF1A: Hypoxia inducible factor-1 $\alpha$ ; ICAM1: Intercellular cell adhesion molecule 1; IL1B: Interleukin 1 $\beta$ ; IL2: Interleukin 2; LHCGR: Luteinizing hormone/choriogonadotropin receptor; MAP4: Microtubule associated protein 4; MAPT: Microtubule associated protein tau; NR1I2: Nuclear receptor subfamily 1 group I member 2; PDCD1: Programmed cell death 1; PTEN: Phosphatase and tensin homolog; PTGS2: Prostaglandin-endoperoxide synthase 2; TNFSF11: Tumour necrosis factor superfamily member 11; TP53: Tumour protein 53; TUBA4A: Tubulin alpha 4a; TUBB1: Tubulin beta 1 class VI.

**Supplementary Table S4. Details of docking results between 621 natural compounds from Danggui Beimu Kushen Wan and 21 targets for prostate cancer (kcal/mol).**

| Compound ID | Min   | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|-------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |       |                |      |                |      |               |      |      | Lower                           | Upper |
| DA001       | -8.3  | -7.9           | -7.3 | -6.4           | -5.9 | -7.17         | 0.79 | 0.17 | -7.53                           | -6.81 |
| DA002       | -7.7  | -6.8           | -6.6 | -6.0           | -5.4 | -6.47         | 0.64 | 0.14 | -6.76                           | -6.18 |
| DA003       | -6.5  | -6.1           | -5.7 | -5.5           | -4.8 | -5.76         | 0.49 | 0.11 | -5.98                           | -5.53 |
| DA004       | -4.1  | -3.7           | -3.6 | -3.3           | -2.8 | -3.53         | 0.34 | 0.08 | -3.69                           | -3.37 |
| DA005       | -6.5  | -6.1           | -5.6 | -5.1           | -4.5 | -5.61         | 0.60 | 0.13 | -5.88                           | -5.34 |
| DA006       | -7.2  | -5.9           | -5.5 | -5.1           | -3.9 | -5.49         | 0.92 | 0.20 | -5.90                           | -5.07 |
| DA007       | -9.7  | -7.3           | -6.6 | -5.7           | -5.1 | -6.61         | 1.13 | 0.25 | -7.13                           | -6.10 |
| DA008       | -7.1  | -6.4           | -6.1 | -5.6           | -4.5 | -5.93         | 0.73 | 0.16 | -6.26                           | -5.59 |
| DA009       | -6.7  | -5.3           | -4.9 | -4.2           | -3.3 | -4.87         | 0.82 | 0.18 | -5.24                           | -4.49 |
| DA010       | -5.6  | -5.2           | -4.9 | -4.9           | -4.2 | -5.00         | 0.35 | 0.08 | -5.16                           | -4.84 |
| DA011       | -3.9  | -3.8           | -3.6 | -3.3           | -2.9 | -3.50         | 0.32 | 0.07 | -3.65                           | -3.36 |
| DA012       | -7.7  | -7.0           | -6.0 | -5.9           | -4.9 | -6.33         | 0.80 | 0.17 | -6.70                           | -5.97 |
| DA013       | -6.5  | -5.8           | -5.5 | -5.2           | -4.6 | -5.47         | 0.48 | 0.11 | -5.69                           | -5.25 |
| DA014       | -4.4  | -4.2           | -3.9 | -3.7           | -3.1 | -3.90         | 0.35 | 0.08 | -4.06                           | -3.75 |
| DA015       | -4.6  | -4.1           | -4.0 | -3.8           | -3.2 | -3.92         | 0.33 | 0.07 | -4.07                           | -3.77 |
| DA016       | -5.9  | -5.5           | -5.2 | -4.7           | -4.4 | -5.16         | 0.47 | 0.10 | -5.37                           | -4.94 |
| DA017       | -6.1  | -5.7           | -5.2 | -5.0           | -4.1 | -5.18         | 0.59 | 0.13 | -5.45                           | -4.91 |
| DA018       | -5.9  | -5.2           | -4.7 | -4.2           | -3.3 | -4.65         | 0.74 | 0.16 | -4.98                           | -4.31 |
| DA019       | -5.3  | -5.0           | -4.6 | -4.4           | -3.3 | -4.59         | 0.55 | 0.12 | -4.84                           | -4.34 |
| DA020       | -6.2  | -5.5           | -5.2 | -4.7           | -3.8 | -5.11         | 0.60 | 0.13 | -5.38                           | -4.83 |
| DA021       | -10.4 | -8.7           | -8.2 | -7.2           | -6.2 | -8.16         | 1.13 | 0.25 | -8.68                           | -7.65 |
| DA022       | -9.0  | -7.7           | -7.2 | -6.8           | -5.5 | -7.16         | 0.85 | 0.19 | -7.55                           | -6.77 |
| DA023       | -7.1  | -5.7           | -5.3 | -4.9           | -4.3 | -5.36         | 0.65 | 0.14 | -5.65                           | -5.06 |
| DA024       | -5.4  | -5.0           | -4.7 | -4.3           | -3.8 | -4.62         | 0.49 | 0.11 | -4.84                           | -4.40 |
| DA025       | -6.7  | -6.1           | -5.6 | -5.3           | -4.3 | -5.60         | 0.71 | 0.15 | -5.92                           | -5.27 |
| DA026       | -6.7  | -6.2           | -5.8 | -5.4           | -4.5 | -5.71         | 0.66 | 0.14 | -6.02                           | -5.41 |
| DA027       | -9.7  | -9.0           | -8.3 | -7.3           | -6.2 | -8.14         | 1.04 | 0.23 | -8.62                           | -7.67 |

| Compound ID | Min   | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|-------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |       |                |      |                |      |               |      |      | Lower                           | Upper |
| DA028       | -8.5  | -7.4           | -6.9 | -6.3           | -5.5 | -6.92         | 0.74 | 0.16 | -7.26                           | -6.58 |
| DA029       | -10.5 | -9.1           | -8.2 | -7.8           | -6.5 | -8.40         | 1.03 | 0.22 | -8.86                           | -7.93 |
| DA030       | -5.2  | -4.6           | -4.3 | -4.0           | -3.4 | -4.28         | 0.52 | 0.11 | -4.52                           | -4.04 |
| DA031       | -9.1  | -7.3           | -7.0 | -6.5           | -5.4 | -6.88         | 0.91 | 0.20 | -7.29                           | -6.46 |
| DA032       | -5.5  | -4.9           | -4.7 | -4.4           | -3.7 | -4.70         | 0.50 | 0.11 | -4.92                           | -4.47 |
| DA033       | -9.3  | -7.7           | -6.7 | -6.3           | -5.1 | -6.90         | 1.09 | 0.24 | -7.40                           | -6.40 |
| DA035       | -9.5  | -7.5           | -7.0 | -5.8           | -5.1 | -6.80         | 1.17 | 0.26 | -7.33                           | -6.27 |
| DA036       | -8.7  | -7.2           | -6.7 | -5.6           | -5.1 | -6.61         | 1.00 | 0.22 | -7.06                           | -6.15 |
| DA037       | -9.4  | -7.5           | -6.8 | -5.9           | -5.5 | -6.92         | 1.01 | 0.22 | -7.39                           | -6.46 |
| DA038       | -9.5  | -7.3           | -6.9 | -6.0           | -5.2 | -6.85         | 1.00 | 0.22 | -7.30                           | -6.39 |
| DA039       | -7.3  | -5.9           | -5.6 | -5.3           | -4.0 | -5.59         | 0.83 | 0.18 | -5.97                           | -5.21 |
| DA040       | -9.8  | -8.4           | -7.8 | -6.8           | -5.8 | -7.75         | 1.07 | 0.23 | -8.24                           | -7.27 |
| DA041       | -6.0  | -5.5           | -5.1 | -4.9           | -3.6 | -5.12         | 0.66 | 0.14 | -5.42                           | -4.83 |
| DA042       | -7.7  | -6.6           | -6.3 | -5.9           | -5.1 | -6.31         | 0.63 | 0.14 | -6.60                           | -6.03 |
| DA043       | -8.6  | -7.8           | -7.2 | -6.3           | -5.8 | -7.04         | 0.90 | 0.20 | -7.45                           | -6.63 |
| DA044       | -7.1  | -5.7           | -5.3 | -4.7           | -3.9 | -5.31         | 0.82 | 0.18 | -5.69                           | -4.94 |
| DA046       | -6.1  | -5.7           | -5.5 | -5.0           | -4.5 | -5.40         | 0.47 | 0.10 | -5.61                           | -5.19 |
| DA047       | -9.2  | -7.3           | -6.8 | -6.0           | -5.1 | -6.73         | 1.03 | 0.23 | -7.20                           | -6.26 |
| DA050       | -9.5  | -7.2           | -6.8 | -5.6           | -5.3 | -6.70         | 1.11 | 0.24 | -7.20                           | -6.20 |
| DA051       | -7.2  | -6.4           | -5.7 | -5.1           | -4.5 | -5.75         | 0.81 | 0.18 | -6.12                           | -5.38 |
| DA052       | -7.0  | -6.4           | -5.9 | -5.5           | -4.7 | -5.90         | 0.66 | 0.14 | -6.20                           | -5.60 |
| DA053       | -6.6  | -6.2           | -5.6 | -5.4           | -4.5 | -5.74         | 0.61 | 0.13 | -6.02                           | -5.46 |
| DA054       | -10.0 | -7.3           | -6.7 | -6.4           | -5.3 | -6.86         | 1.08 | 0.24 | -7.35                           | -6.36 |
| DA055       | -9.1  | -7.5           | -6.7 | -5.5           | -5.1 | -6.66         | 1.08 | 0.24 | -7.15                           | -6.16 |
| DA056       | -9.3  | -7.4           | -6.9 | -5.7           | -5.2 | -6.74         | 1.13 | 0.25 | -7.26                           | -6.23 |
| DA057       | -9.6  | -7.2           | -6.7 | -5.9           | -5.1 | -6.72         | 1.10 | 0.24 | -7.22                           | -6.22 |
| DA058       | -7.0  | -6.2           | -5.7 | -5.5           | -4.4 | -5.79         | 0.71 | 0.15 | -6.11                           | -5.47 |
| DA059       | -6.5  | -5.7           | -5.5 | -5.2           | -4.1 | -5.45         | 0.57 | 0.12 | -5.71                           | -5.20 |
| DA060       | -8.9  | -6.9           | -6.8 | -5.6           | -4.9 | -6.55         | 0.98 | 0.21 | -7.00                           | -6.11 |
| DA061       | -8.1  | -7.0           | -6.7 | -6.1           | -5.1 | -6.57         | 0.79 | 0.17 | -6.93                           | -6.21 |
| DA062       | -7.7  | -6.9           | -6.2 | -5.9           | -4.7 | -6.40         | 0.75 | 0.16 | -6.74                           | -6.05 |

| Compound ID | Min   | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|-------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |       |                |      |                |      |               |      |      | Lower                           | Upper |
| DA063       | -7.5  | -6.6           | -6.3 | -5.7           | -4.8 | -6.20         | 0.71 | 0.15 | -6.52                           | -5.87 |
| DA064       | -9.7  | -7.7           | -6.7 | -6.2           | -5.3 | -6.94         | 1.18 | 0.26 | -7.48                           | -6.40 |
| DA065       | -6.9  | -6.1           | -5.6 | -5.1           | -4.2 | -5.58         | 0.75 | 0.16 | -5.92                           | -5.24 |
| DA066       | -7.1  | -6.1           | -5.6 | -5.4           | -4.5 | -5.66         | 0.69 | 0.15 | -5.98                           | -5.35 |
| DA067       | -7.0  | -5.8           | -5.4 | -5.1           | -4.2 | -5.50         | 0.81 | 0.18 | -5.87                           | -5.13 |
| DA068       | -7.9  | -6.5           | -5.8 | -5.4           | -4.8 | -6.04         | 0.88 | 0.19 | -6.44                           | -5.64 |
| DA070       | -7.1  | -6.3           | -5.8 | -5.2           | -4.6 | -5.81         | 0.72 | 0.16 | -6.14                           | -5.48 |
| DA071       | -6.2  | -5.6           | -5.2 | -4.8           | -4.0 | -5.18         | 0.63 | 0.14 | -5.46                           | -4.89 |
| DA072       | -5.4  | -4.9           | -4.4 | -4.2           | -3.0 | -4.42         | 0.62 | 0.14 | -4.71                           | -4.14 |
| DA073       | -6.0  | -5.4           | -5.0 | -4.6           | -3.7 | -4.96         | 0.66 | 0.14 | -5.26                           | -4.66 |
| DA074       | -8.8  | -6.8           | -6.3 | -5.7           | -5.0 | -6.37         | 0.95 | 0.21 | -6.80                           | -5.94 |
| DA075       | -8.7  | -6.4           | -5.9 | -5.1           | -4.8 | -6.00         | 1.04 | 0.23 | -6.47                           | -5.53 |
| DA076       | -6.2  | -5.3           | -4.5 | -4.0           | -3.2 | -4.59         | 0.83 | 0.18 | -4.97                           | -4.21 |
| DA077       | -6.5  | -5.7           | -5.4 | -5.0           | -4.0 | -5.29         | 0.70 | 0.15 | -5.60                           | -4.97 |
| DA078       | -8.7  | -7.5           | -6.6 | -5.9           | -5.3 | -6.78         | 0.97 | 0.21 | -7.22                           | -6.34 |
| DA079       | -9.3  | -7.1           | -6.6 | -5.7           | -5.2 | -6.60         | 1.06 | 0.23 | -7.08                           | -6.12 |
| DA080       | -9.6  | -7.7           | -6.8 | -6.0           | -5.2 | -6.92         | 1.17 | 0.25 | -7.45                           | -6.39 |
| DA081       | -5.5  | -5.1           | -4.7 | -4.4           | -4.1 | -4.74         | 0.44 | 0.09 | -4.94                           | -4.54 |
| DA082       | -6.7  | -6.2           | -5.8 | -5.4           | -4.4 | -5.74         | 0.72 | 0.16 | -6.07                           | -5.41 |
| DA083       | -8.7  | -7.2           | -6.4 | -5.7           | -5.0 | -6.50         | 1.07 | 0.23 | -6.98                           | -6.01 |
| DA084       | -9.2  | -7.3           | -6.8 | -5.5           | -5.2 | -6.69         | 1.16 | 0.25 | -7.21                           | -6.16 |
| DA085       | -10.0 | -7.4           | -6.9 | -5.7           | -5.1 | -6.75         | 1.19 | 0.26 | -7.29                           | -6.21 |
| DA087       | -6.7  | -6.1           | -5.5 | -4.9           | -4.3 | -5.51         | 0.71 | 0.15 | -5.83                           | -5.19 |
| DA088       | -6.1  | -5.5           | -5.1 | -4.9           | -3.7 | -5.05         | 0.60 | 0.13 | -5.33                           | -4.78 |
| DA089       | -7.2  | -5.8           | -5.6 | -5.1           | -4.0 | -5.55         | 0.84 | 0.18 | -5.93                           | -5.17 |
| DA090       | -6.6  | -6.0           | -5.7 | -5.3           | -4.1 | -5.56         | 0.69 | 0.15 | -5.88                           | -5.25 |
| DA091       | -6.8  | -6.2           | -6.0 | -5.3           | -4.5 | -5.77         | 0.70 | 0.15 | -6.09                           | -5.45 |
| DA092       | -6.2  | -5.1           | -4.5 | -4.0           | -3.3 | -4.57         | 0.81 | 0.18 | -4.94                           | -4.20 |
| DA093       | -7.9  | -6.8           | -6.3 | -5.8           | -5.0 | -6.38         | 0.84 | 0.18 | -6.76                           | -6.00 |
| DA095       | -6.1  | -5.6           | -5.3 | -5.0           | -4.0 | -5.25         | 0.53 | 0.12 | -5.49                           | -5.01 |
| DA096       | -5.9  | -5.3           | -5.1 | -4.8           | -3.8 | -5.00         | 0.58 | 0.13 | -5.27                           | -4.73 |

| Compound ID | Min  | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |      |                |      |                |      |               |      |      | Lower                           | Upper |
| DA097       | -6.7 | -6.1           | -5.5 | -5.2           | -4.0 | -5.57         | 0.78 | 0.17 | -5.93                           | -5.22 |
| DA098       | -6.1 | -5.6           | -5.4 | -5.0           | -4.2 | -5.26         | 0.55 | 0.12 | -5.51                           | -5.01 |
| DA099       | -8.2 | -7.0           | -6.0 | -5.5           | -3.5 | -6.06         | 1.17 | 0.26 | -6.60                           | -5.53 |
| DA100       | -6.1 | -5.6           | -5.4 | -5.1           | -4.0 | -5.26         | 0.56 | 0.12 | -5.52                           | -5.01 |
| DA101       | -5.7 | -5.0           | -4.8 | -4.6           | -3.4 | -4.67         | 0.55 | 0.12 | -4.92                           | -4.42 |
| DA102       | -4.6 | -4.3           | -4.0 | -4.0           | -3.3 | -4.05         | 0.32 | 0.07 | -4.20                           | -3.91 |
| DA103       | -6.5 | -5.3           | -4.7 | -4.4           | -4.0 | -4.90         | 0.68 | 0.15 | -5.21                           | -4.59 |
| DA104       | -6.2 | -5.4           | -4.9 | -4.7           | -3.9 | -5.02         | 0.58 | 0.13 | -5.29                           | -4.76 |
| DA105       | -6.6 | -6.5           | -6.0 | -5.5           | -4.9 | -5.91         | 0.58 | 0.13 | -6.17                           | -5.65 |
| DA106       | -6.6 | -5.5           | -4.8 | -4.5           | -3.8 | -5.05         | 0.75 | 0.16 | -5.39                           | -4.71 |
| DA107       | -6.5 | -5.3           | -5.1 | -4.6           | -3.9 | -5.10         | 0.76 | 0.17 | -5.45                           | -4.76 |
| DA108       | -6.8 | -5.6           | -4.9 | -4.6           | -4.1 | -5.10         | 0.70 | 0.15 | -5.42                           | -4.79 |
| DA109       | -6.6 | -6.1           | -5.6 | -5.2           | -4.1 | -5.61         | 0.62 | 0.13 | -5.89                           | -5.33 |
| DA110       | -6.7 | -6.0           | -5.8 | -5.3           | -4.6 | -5.64         | 0.60 | 0.13 | -5.92                           | -5.37 |
| DA111       | -7.1 | -6.4           | -6.0 | -5.5           | -4.7 | -5.85         | 0.68 | 0.15 | -6.16                           | -5.54 |
| DA112       | -6.7 | -6.0           | -5.8 | -5.4           | -4.8 | -5.76         | 0.59 | 0.13 | -6.03                           | -5.49 |
| DA114       | -5.9 | -5.0           | -4.5 | -4.3           | -3.4 | -4.58         | 0.62 | 0.14 | -4.86                           | -4.30 |
| DA115       | -6.4 | -6.0           | -5.7 | -5.1           | -4.6 | -5.56         | 0.52 | 0.11 | -5.80                           | -5.32 |
| DA116       | -6.1 | -5.0           | -4.7 | -4.1           | -3.2 | -4.65         | 0.73 | 0.16 | -4.98                           | -4.32 |
| DA117       | -5.7 | -5.2           | -4.9 | -4.3           | -3.8 | -4.80         | 0.55 | 0.12 | -5.05                           | -4.55 |
| DA118       | -6.3 | -5.3           | -4.9 | -4.6           | -3.7 | -4.89         | 0.67 | 0.15 | -5.20                           | -4.58 |
| DA119       | -6.2 | -5.8           | -5.6 | -5.2           | -4.6 | -5.45         | 0.48 | 0.11 | -5.67                           | -5.23 |
| DA120       | -6.1 | -5.4           | -4.8 | -4.3           | -3.6 | -4.79         | 0.71 | 0.16 | -5.11                           | -4.47 |
| DA121       | -5.7 | -5.2           | -4.5 | -4.2           | -3.2 | -4.60         | 0.73 | 0.16 | -4.93                           | -4.27 |
| DA122       | -5.5 | -5.0           | -4.7 | -4.3           | -3.1 | -4.56         | 0.64 | 0.14 | -4.85                           | -4.27 |
| DA123       | -6.2 | -6.0           | -5.6 | -4.9           | -4.3 | -5.50         | 0.59 | 0.13 | -5.77                           | -5.24 |
| DA125       | -6.8 | -6.1           | -5.7 | -5.1           | -4.3 | -5.64         | 0.68 | 0.15 | -5.95                           | -5.33 |
| DA126       | -7.6 | -6.8           | -6.3 | -5.6           | -4.8 | -6.26         | 0.83 | 0.18 | -6.64                           | -5.88 |
| DA127       | -5.7 | -5.4           | -5.1 | -4.5           | -3.7 | -4.93         | 0.61 | 0.13 | -5.21                           | -4.66 |
| DA128       | -7.3 | -6.5           | -5.7 | -5.6           | -4.6 | -5.87         | 0.78 | 0.17 | -6.22                           | -5.51 |
| DA129       | -7.8 | -6.2           | -5.8 | -4.9           | -4.6 | -5.83         | 0.96 | 0.21 | -6.26                           | -5.39 |

| Compound ID | Min   | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|-------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |       |                |      |                |      |               |      |      | Lower                           | Upper |
| DA130       | -5.6  | -5.1           | -4.8 | -4.6           | -3.8 | -4.77         | 0.47 | 0.10 | -4.98                           | -4.55 |
| DA133       | -6.3  | -5.4           | -4.8 | -4.4           | -3.7 | -4.88         | 0.66 | 0.14 | -5.18                           | -4.57 |
| DA134       | -6.1  | -5.3           | -5.1 | -4.8           | -4.0 | -5.03         | 0.51 | 0.11 | -5.27                           | -4.80 |
| DA136       | -6.7  | -5.7           | -5.4 | -4.9           | -3.7 | -5.30         | 0.75 | 0.16 | -5.64                           | -4.96 |
| DA137       | -9.3  | -7.0           | -6.3 | -5.4           | -4.8 | -6.37         | 1.15 | 0.25 | -6.90                           | -5.85 |
| DA138       | -10.7 | -8.9           | -8.0 | -7.5           | -6.4 | -8.19         | 1.09 | 0.24 | -8.68                           | -7.69 |
| DA139       | -6.8  | -6.4           | -5.7 | -5.4           | -4.8 | -5.81         | 0.62 | 0.14 | -6.09                           | -5.53 |
| DA140       | -7.0  | -6.2           | -6.0 | -5.6           | -4.7 | -5.84         | 0.66 | 0.14 | -6.14                           | -5.54 |
| DA141       | -5.9  | -5.5           | -5.2 | -4.6           | -3.6 | -5.03         | 0.66 | 0.14 | -5.33                           | -4.73 |
| DA143       | -5.5  | -5.0           | -4.7 | -4.2           | -3.7 | -4.62         | 0.56 | 0.12 | -4.88                           | -4.37 |
| DA144       | -5.8  | -5.1           | -4.8 | -4.1           | -3.6 | -4.67         | 0.70 | 0.15 | -4.99                           | -4.35 |
| DA145       | -6.1  | -5.4           | -5.0 | -4.5           | -3.7 | -5.01         | 0.62 | 0.14 | -5.29                           | -4.73 |
| DA146       | -6.9  | -5.4           | -4.8 | -4.4           | -3.8 | -4.92         | 0.77 | 0.17 | -5.27                           | -4.58 |
| DA147       | -6.0  | -5.3           | -4.8 | -4.4           | -3.4 | -4.77         | 0.76 | 0.17 | -5.12                           | -4.42 |
| DA148       | -8.5  | -7.1           | -6.8 | -5.6           | -5.2 | -6.60         | 1.05 | 0.23 | -7.08                           | -6.12 |
| DA149       | -4.8  | -4.3           | -4.1 | -3.9           | -3.2 | -4.09         | 0.40 | 0.09 | -4.27                           | -3.91 |
| DA150       | -6.0  | -5.2           | -4.7 | -4.4           | -3.3 | -4.70         | 0.69 | 0.15 | -5.01                           | -4.38 |
| DA152       | -6.7  | -5.6           | -5.2 | -4.7           | -4.1 | -5.22         | 0.66 | 0.14 | -5.52                           | -4.92 |
| DA153       | -7.3  | -6.1           | -5.2 | -5.0           | -3.9 | -5.43         | 0.98 | 0.21 | -5.87                           | -4.98 |
| DA154       | -6.3  | -5.4           | -5.1 | -4.3           | -3.6 | -4.90         | 0.75 | 0.16 | -5.24                           | -4.56 |
| DA155       | -4.7  | -4.4           | -4.2 | -4.0           | -3.4 | -4.15         | 0.35 | 0.08 | -4.31                           | -3.99 |
| DA156       | -5.5  | -4.8           | -4.3 | -4.1           | -3.5 | -4.37         | 0.51 | 0.11 | -4.60                           | -4.13 |
| DA157       | -5.2  | -4.8           | -4.5 | -4.0           | -3.3 | -4.38         | 0.55 | 0.12 | -4.63                           | -4.12 |
| DA158       | -5.3  | -4.7           | -4.2 | -4.1           | -3.0 | -4.27         | 0.58 | 0.13 | -4.53                           | -4.00 |
| DA159       | -8.4  | -6.9           | -6.4 | -5.6           | -4.8 | -6.40         | 0.95 | 0.21 | -6.83                           | -5.97 |
| DA160       | -8.4  | -7.2           | -6.7 | -6.1           | -5.3 | -6.78         | 0.88 | 0.19 | -7.18                           | -6.38 |
| DA161       | -5.8  | -5.3           | -4.9 | -4.3           | -3.7 | -4.77         | 0.62 | 0.13 | -5.05                           | -4.49 |
| DA162       | -11.0 | -8.6           | -8.0 | -7.3           | -6.0 | -8.10         | 1.25 | 0.27 | -8.67                           | -7.52 |
| DA163       | -6.1  | -5.0           | -4.6 | -4.1           | -3.4 | -4.60         | 0.75 | 0.16 | -4.95                           | -4.26 |
| DA164       | -5.9  | -5.1           | -4.9 | -4.5           | -4.0 | -4.87         | 0.48 | 0.10 | -5.09                           | -4.65 |
| DA165       | -6.1  | -5.2           | -4.9 | -4.2           | -3.3 | -4.76         | 0.71 | 0.15 | -5.08                           | -4.44 |

| Compound ID | Min   | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|-------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |       |                |      |                |      |               |      |      | Lower                           | Upper |
| DA166       | -7.9  | -7.0           | -6.6 | -5.7           | -5.2 | -6.44         | 0.79 | 0.17 | -6.80                           | -6.08 |
| DA168       | -6.4  | -5.7           | -5.4 | -5.0           | -4.0 | -5.33         | 0.61 | 0.13 | -5.61                           | -5.05 |
| DA169       | -6.8  | -6.2           | -5.8 | -5.3           | -4.5 | -5.72         | 0.73 | 0.16 | -6.05                           | -5.39 |
| DA170       | -10.0 | -7.9           | -7.1 | -6.7           | -6.0 | -7.45         | 1.04 | 0.23 | -7.93                           | -6.98 |
| DA171       | -6.2  | -5.6           | -5.1 | -4.9           | -4.2 | -5.12         | 0.54 | 0.12 | -5.36                           | -4.87 |
| DA172       | -5.3  | -4.7           | -4.5 | -4.2           | -3.4 | -4.43         | 0.54 | 0.12 | -4.68                           | -4.19 |
| DA173       | -5.8  | -5.0           | -4.6 | -4.4           | -3.5 | -4.63         | 0.58 | 0.13 | -4.90                           | -4.37 |
| DA174       | -5.8  | -5.2           | -4.8 | -4.1           | -3.4 | -4.67         | 0.74 | 0.16 | -5.00                           | -4.33 |
| DA175       | -6.3  | -5.7           | -5.4 | -5.0           | -4.1 | -5.32         | 0.54 | 0.12 | -5.57                           | -5.07 |
| DA176       | -6.9  | -5.8           | -5.5 | -4.7           | -4.0 | -5.38         | 0.86 | 0.19 | -5.77                           | -4.99 |
| DA177       | -5.6  | -5.0           | -4.7 | -4.5           | -4.0 | -4.76         | 0.40 | 0.09 | -4.94                           | -4.58 |
| DA178       | -5.5  | -5.2           | -4.9 | -4.6           | -3.3 | -4.78         | 0.63 | 0.14 | -5.07                           | -4.49 |
| DA179       | -6.4  | -5.5           | -5.0 | -4.8           | -3.7 | -5.06         | 0.74 | 0.16 | -5.40                           | -4.72 |
| DA180       | -6.6  | -5.7           | -5.4 | -4.8           | -4.0 | -5.31         | 0.70 | 0.15 | -5.63                           | -4.99 |
| DA182       | -5.6  | -4.9           | -4.6 | -4.2           | -3.6 | -4.60         | 0.55 | 0.12 | -4.84                           | -4.35 |
| DA183       | -6.1  | -5.6           | -5.4 | -5.2           | -4.3 | -5.34         | 0.48 | 0.10 | -5.56                           | -5.12 |
| DA184       | -8.0  | -6.7           | -6.3 | -5.6           | -4.3 | -6.22         | 0.89 | 0.19 | -6.63                           | -5.82 |
| DA185       | -6.6  | -5.7           | -5.4 | -5.0           | -4.1 | -5.30         | 0.59 | 0.13 | -5.56                           | -5.03 |
| DA186       | -6.9  | -6.2           | -5.9 | -5.5           | -4.4 | -5.75         | 0.68 | 0.15 | -6.06                           | -5.44 |
| DA188       | -7.1  | -5.9           | -5.6 | -5.2           | -4.0 | -5.57         | 0.80 | 0.18 | -5.94                           | -5.21 |
| DA190       | -7.6  | -6.3           | -5.9 | -5.1           | -4.4 | -5.87         | 0.92 | 0.20 | -6.28                           | -5.45 |
| DA191       | -8.5  | -7.2           | -6.7 | -6.1           | -5.3 | -6.70         | 0.83 | 0.18 | -7.08                           | -6.33 |
| DA192       | -9.0  | -7.2           | -6.9 | -6.3           | -5.4 | -6.83         | 0.88 | 0.19 | -7.23                           | -6.43 |
| DA193       | -8.8  | -6.7           | -6.1 | -5.5           | -4.8 | -6.20         | 0.99 | 0.22 | -6.66                           | -5.75 |
| DA196       | -6.0  | -5.1           | -4.8 | -4.2           | -3.4 | -4.65         | 0.66 | 0.14 | -4.95                           | -4.35 |
| DA198       | -8.1  | -6.8           | -6.4 | -5.6           | -4.2 | -6.19         | 0.92 | 0.20 | -6.61                           | -5.77 |
| DA199       | -6.6  | -5.6           | -5.4 | -4.8           | -3.9 | -5.28         | 0.70 | 0.15 | -5.59                           | -4.96 |
| DA200       | -7.0  | -6.3           | -5.9 | -5.5           | -4.5 | -5.82         | 0.68 | 0.15 | -6.13                           | -5.51 |
| DA201       | -6.8  | -6.1           | -5.9 | -4.9           | -4.1 | -5.59         | 0.75 | 0.16 | -5.93                           | -5.24 |
| DA202       | -10.4 | -8.7           | -7.9 | -7.1           | -5.6 | -8.05         | 1.24 | 0.27 | -8.61                           | -7.48 |
| DA203       | -10.6 | -9.0           | -8.3 | -7.5           | -5.4 | -8.20         | 1.29 | 0.28 | -8.79                           | -7.61 |

| Compound ID | Min   | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|-------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |       |                |      |                |      |               |      |      | Lower                           | Upper |
| DA205       | -8.9  | -7.3           | -6.7 | -5.7           | -5.0 | -6.62         | 1.07 | 0.23 | -7.11                           | -6.13 |
| DA206       | -5.8  | -5.3           | -5.1 | -4.9           | -4.1 | -5.04         | 0.43 | 0.09 | -5.24                           | -4.85 |
| DA207       | -10.6 | -8.9           | -8.3 | -7.4           | -6.2 | -8.23         | 1.03 | 0.22 | -8.70                           | -7.76 |
| DA208       | -8.2  | -7.3           | -6.5 | -5.8           | -5.1 | -6.59         | 0.96 | 0.21 | -7.02                           | -6.15 |
| DA209       | -6.8  | -6.0           | -5.7 | -5.3           | -4.6 | -5.65         | 0.66 | 0.14 | -5.95                           | -5.35 |
| DA210       | -5.3  | -4.9           | -4.5 | -4.2           | -3.0 | -4.45         | 0.64 | 0.14 | -4.74                           | -4.16 |
| DA211       | -8.3  | -7.0           | -6.5 | -6.0           | -5.0 | -6.58         | 0.78 | 0.17 | -6.94                           | -6.23 |
| DA212       | -5.0  | -4.3           | -4.1 | -3.9           | -3.1 | -4.08         | 0.44 | 0.10 | -4.28                           | -3.87 |
| DA213       | -6.7  | -5.7           | -5.4 | -4.8           | -4.3 | -5.40         | 0.69 | 0.15 | -5.72                           | -5.08 |
| DA214       | -6.1  | -5.5           | -5.3 | -5.0           | -4.5 | -5.28         | 0.43 | 0.09 | -5.47                           | -5.08 |
| DA215       | -5.9  | -5.5           | -5.1 | -4.8           | -4.2 | -5.10         | 0.48 | 0.10 | -5.31                           | -4.88 |
| DA216       | -6.3  | -5.9           | -5.5 | -5.2           | -4.5 | -5.43         | 0.54 | 0.12 | -5.68                           | -5.19 |
| DB001       | -7.8  | -6.8           | -6.2 | -6.0           | -5.0 | -6.31         | 0.73 | 0.16 | -6.65                           | -5.98 |
| DB002       | -7.7  | -6.5           | -6.1 | -5.8           | -5.1 | -6.24         | 0.76 | 0.16 | -6.59                           | -5.90 |
| DB003       | -7.8  | -7.0           | -6.4 | -6.1           | -5.1 | -6.47         | 0.77 | 0.17 | -6.82                           | -6.11 |
| DB004       | -7.8  | -7.0           | -6.6 | -6.2           | -5.1 | -6.55         | 0.72 | 0.16 | -6.88                           | -6.22 |
| DB005       | -7.9  | -6.9           | -6.3 | -6.0           | -4.9 | -6.42         | 0.81 | 0.18 | -6.79                           | -6.05 |
| DB006       | -7.6  | -6.7           | -6.2 | -5.9           | -5.1 | -6.26         | 0.72 | 0.16 | -6.59                           | -5.94 |
| DB007       | -7.0  | -6.7           | -6.4 | -5.9           | -5.0 | -6.28         | 0.56 | 0.12 | -6.53                           | -6.02 |
| DB008       | -9.9  | -8.7           | -8.0 | -7.0           | -6.2 | -7.89         | 1.07 | 0.23 | -8.38                           | -7.40 |
| DB009       | -7.8  | -6.9           | -6.5 | -6.0           | -5.0 | -6.41         | 0.70 | 0.15 | -6.73                           | -6.10 |
| DB010       | -9.3  | -8.4           | -7.9 | -6.7           | -5.9 | -7.72         | 0.97 | 0.21 | -8.16                           | -7.28 |
| DB012       | -9.5  | -8.6           | -8.4 | -6.9           | -6.1 | -7.90         | 1.07 | 0.23 | -8.39                           | -7.41 |
| DB013       | -9.6  | -8.0           | -7.5 | -6.6           | -5.6 | -7.39         | 0.93 | 0.20 | -7.82                           | -6.97 |
| DB014       | -7.4  | -6.9           | -6.4 | -5.9           | -4.8 | -6.25         | 0.72 | 0.16 | -6.57                           | -5.92 |
| DB015       | -10.3 | -8.1           | -7.5 | -6.9           | -5.7 | -7.67         | 1.09 | 0.24 | -8.16                           | -7.17 |
| DB016       | -9.9  | -8.6           | -7.9 | -7.4           | -5.9 | -7.88         | 1.03 | 0.22 | -8.34                           | -7.41 |
| DB017       | -9.4  | -8.1           | -7.8 | -6.8           | -6.0 | -7.57         | 0.98 | 0.21 | -8.02                           | -7.12 |
| DB018       | -11.1 | -8.4           | -7.5 | -6.8           | -6.0 | -7.68         | 1.16 | 0.25 | -8.21                           | -7.15 |
| DB019       | -7.7  | -6.9           | -6.5 | -6.0           | -5.0 | -6.43         | 0.73 | 0.16 | -6.76                           | -6.10 |
| DB024       | -7.7  | -6.8           | -6.2 | -6.1           | -5.1 | -6.37         | 0.73 | 0.16 | -6.70                           | -6.03 |

| Compound ID | Min   | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|-------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |       |                |      |                |      |               |      |      | Lower                           | Upper |
| DB025       | -7.7  | -6.8           | -6.5 | -6.2           | -4.8 | -6.40         | 0.67 | 0.15 | -6.70                           | -6.09 |
| DB026       | -8.0  | -6.9           | -6.4 | -6.1           | -5.3 | -6.50         | 0.74 | 0.16 | -6.83                           | -6.16 |
| DB027       | -7.6  | -6.8           | -6.5 | -6.1           | -4.9 | -6.44         | 0.70 | 0.15 | -6.76                           | -6.13 |
| DB028       | -7.9  | -7.0           | -6.5 | -6.1           | -5.0 | -6.50         | 0.72 | 0.16 | -6.83                           | -6.18 |
| DB029       | -7.9  | -7.0           | -6.4 | -6.0           | -4.9 | -6.47         | 0.73 | 0.16 | -6.80                           | -6.13 |
| DB030       | -7.9  | -6.8           | -6.4 | -6.0           | -4.9 | -6.41         | 0.69 | 0.15 | -6.72                           | -6.10 |
| DB031       | -7.6  | -6.9           | -6.5 | -6.0           | -5.1 | -6.52         | 0.68 | 0.15 | -6.83                           | -6.21 |
| DB032       | -11.1 | -8.5           | -8.1 | -7.5           | -6.3 | -8.06         | 1.07 | 0.23 | -8.54                           | -7.57 |
| DB034       | -7.9  | -6.7           | -6.3 | -6.0           | -5.1 | -6.30         | 0.74 | 0.16 | -6.64                           | -5.96 |
| DB035       | -7.4  | -6.6           | -6.2 | -5.9           | -4.8 | -6.17         | 0.70 | 0.15 | -6.49                           | -5.85 |
| DB036       | -9.6  | -8.7           | -8.0 | -7.3           | -6.0 | -7.89         | 1.00 | 0.22 | -8.34                           | -7.44 |
| DB037       | -7.9  | -6.6           | -6.1 | -5.9           | -5.1 | -6.30         | 0.78 | 0.17 | -6.65                           | -5.94 |
| DB038       | -9.1  | -7.9           | -7.7 | -6.7           | -5.6 | -7.41         | 0.86 | 0.19 | -7.81                           | -7.02 |
| DC001       | -6.3  | -6.1           | -5.9 | -5.2           | -4.8 | -5.69         | 0.53 | 0.11 | -5.93                           | -5.45 |
| DC002       | -6.8  | -6.1           | -5.8 | -5.4           | -4.9 | -5.77         | 0.57 | 0.12 | -6.03                           | -5.51 |
| DC003       | -6.2  | -5.9           | -5.6 | -4.9           | -4.5 | -5.48         | 0.52 | 0.11 | -5.71                           | -5.24 |
| DC004       | -6.2  | -6.0           | -5.7 | -5.2           | -4.7 | -5.63         | 0.44 | 0.10 | -5.84                           | -5.43 |
| DC005       | -7.1  | -6.4           | -5.9 | -5.6           | -4.8 | -5.96         | 0.61 | 0.13 | -6.23                           | -5.68 |
| DC006       | -7.1  | -6.5           | -6.1 | -5.6           | -4.8 | -6.01         | 0.62 | 0.13 | -6.29                           | -5.73 |
| DC007       | -10.1 | -8.7           | -7.9 | -7.1           | -6.5 | -7.96         | 1.01 | 0.22 | -8.42                           | -7.50 |
| DC008       | -10.3 | -8.6           | -8.1 | -7.5           | -6.8 | -8.17         | 0.91 | 0.20 | -8.58                           | -7.75 |
| DC009       | -5.7  | -5.4           | -5.1 | -4.7           | -4.2 | -5.06         | 0.45 | 0.10 | -5.27                           | -4.86 |
| DC010       | -5.4  | -4.9           | -4.5 | -4.3           | -3.8 | -4.57         | 0.44 | 0.10 | -4.77                           | -4.37 |
| DC011       | -6.4  | -6.0           | -5.7 | -5.1           | -4.6 | -5.57         | 0.54 | 0.12 | -5.81                           | -5.32 |
| DC012       | -6.3  | -5.5           | -5.0 | -4.7           | -4.2 | -5.04         | 0.54 | 0.12 | -5.29                           | -4.80 |
| DC013       | -6.8  | -5.6           | -4.9 | -4.5           | -3.5 | -5.01         | 0.85 | 0.19 | -5.40                           | -4.63 |
| DC014       | -5.2  | -4.4           | -4.1 | -3.8           | -3.6 | -4.13         | 0.43 | 0.09 | -4.33                           | -3.94 |
| DC015       | -4.1  | -3.5           | -3.3 | -3.1           | -2.8 | -3.30         | 0.34 | 0.07 | -3.45                           | -3.14 |
| DC016       | -9.1  | -7.9           | -7.5 | -6.7           | -5.8 | -7.40         | 0.94 | 0.21 | -7.83                           | -6.98 |
| DC017       | -6.5  | -5.6           | -5.4 | -4.8           | -4.6 | -5.32         | 0.49 | 0.11 | -5.54                           | -5.10 |
| DC018       | -3.6  | -2.9           | -2.8 | -2.6           | -2.4 | -2.81         | 0.28 | 0.06 | -2.94                           | -2.68 |

| Compound ID | Min  | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |      |                |      |                |      |               |      |      | Lower                           | Upper |
| DC019       | -5.0 | -4.7           | -4.4 | -4.1           | -3.8 | -4.41         | 0.37 | 0.08 | -4.58                           | -4.25 |
| DC020       | -5.2 | -4.9           | -4.5 | -4.2           | -3.9 | -4.53         | 0.40 | 0.09 | -4.72                           | -4.35 |
| DC021       | -6.5 | -6.0           | -5.5 | -4.7           | -3.7 | -5.30         | 0.91 | 0.20 | -5.72                           | -4.89 |
| DC022       | -6.9 | -6.0           | -5.4 | -4.9           | -4.4 | -5.52         | 0.74 | 0.16 | -5.85                           | -5.18 |
| DC023       | -6.4 | -5.6           | -5.0 | -4.5           | -3.8 | -5.09         | 0.77 | 0.17 | -5.43                           | -4.74 |
| DC024       | -6.8 | -6.4           | -6.0 | -5.5           | -4.8 | -5.90         | 0.61 | 0.13 | -6.18                           | -5.62 |
| DC025       | -9.4 | -8.0           | -7.3 | -6.8           | -5.9 | -7.45         | 0.98 | 0.21 | -7.90                           | -7.01 |
| DC026       | -7.7 | -6.1           | -5.4 | -5.2           | -4.4 | -5.59         | 0.75 | 0.16 | -5.93                           | -5.25 |
| DD001       | -8.0 | -7.2           | -7.0 | -6.7           | -5.6 | -6.94         | 0.68 | 0.15 | -7.25                           | -6.63 |
| DD002       | -9.1 | -7.6           | -7.4 | -6.8           | -5.7 | -7.21         | 0.82 | 0.18 | -7.59                           | -6.84 |
| DD003       | -7.5 | -6.5           | -6.4 | -6.0           | -5.1 | -6.27         | 0.63 | 0.14 | -6.55                           | -5.98 |
| DD004       | -7.8 | -6.9           | -6.7 | -6.3           | -5.0 | -6.57         | 0.65 | 0.14 | -6.86                           | -6.27 |
| DD005       | -9.4 | -7.7           | -7.3 | -6.9           | -5.8 | -7.30         | 0.86 | 0.19 | -7.69                           | -6.92 |
| DD006       | -9.6 | -7.9           | -7.5 | -6.8           | -5.9 | -7.43         | 0.86 | 0.19 | -7.82                           | -7.04 |
| DD007       | -9.0 | -7.5           | -7.0 | -6.7           | -5.7 | -7.09         | 0.83 | 0.18 | -7.47                           | -6.71 |
| DD008       | -7.8 | -6.8           | -6.4 | -6.0           | -4.9 | -6.37         | 0.67 | 0.15 | -6.68                           | -6.07 |
| DD009       | -8.3 | -7.6           | -7.1 | -6.3           | -5.6 | -7.02         | 0.80 | 0.18 | -7.38                           | -6.65 |
| DD010       | -9.6 | -7.6           | -7.3 | -6.7           | -5.4 | -7.27         | 0.99 | 0.21 | -7.72                           | -6.82 |
| DD011       | -8.3 | -7.3           | -6.8 | -6.2           | -5.4 | -6.78         | 0.79 | 0.17 | -7.14                           | -6.42 |
| DD012       | -8.9 | -7.8           | -7.1 | -6.7           | -5.8 | -7.22         | 0.84 | 0.18 | -7.60                           | -6.84 |
| DD013       | -8.2 | -7.1           | -6.9 | -6.5           | -5.2 | -6.76         | 0.83 | 0.18 | -7.14                           | -6.38 |
| DD014       | -8.7 | -7.8           | -7.3 | -6.4           | -5.6 | -7.16         | 0.85 | 0.19 | -7.55                           | -6.77 |
| DE001       | -6.2 | -5.5           | -5.1 | -4.4           | -4.0 | -4.97         | 0.68 | 0.15 | -5.28                           | -4.66 |
| DE002       | -6.9 | -5.5           | -5.1 | -4.6           | -4.0 | -5.10         | 0.71 | 0.16 | -5.42                           | -4.78 |
| DF001       | -8.0 | -7.4           | -7.0 | -6.1           | -5.5 | -6.82         | 0.74 | 0.16 | -7.16                           | -6.48 |
| DF002       | -7.5 | -7.1           | -6.5 | -6.0           | -5.2 | -6.49         | 0.68 | 0.15 | -6.80                           | -6.18 |
| DF003       | -8.1 | -7.1           | -6.7 | -6.2           | -5.5 | -6.71         | 0.75 | 0.16 | -7.05                           | -6.37 |
| DF004       | -7.6 | -6.7           | -6.1 | -5.8           | -4.9 | -6.26         | 0.74 | 0.16 | -6.60                           | -5.93 |
| DF005       | -7.9 | -6.9           | -6.5 | -6.0           | -5.2 | -6.52         | 0.72 | 0.16 | -6.85                           | -6.19 |
| DF006       | -8.9 | -7.9           | -7.2 | -6.5           | -5.5 | -7.20         | 0.88 | 0.19 | -7.60                           | -6.80 |
| DF007       | -8.5 | -7.8           | -7.0 | -6.6           | -5.3 | -7.14         | 0.85 | 0.19 | -7.53                           | -6.75 |

| Compound ID | Min  | 25%<br>Percentile | Med  | 75%<br>Percentile | Max  | Average<br>Value | SD   | SEM  | 95% Confidence<br>Interval of Mean |       |
|-------------|------|-------------------|------|-------------------|------|------------------|------|------|------------------------------------|-------|
|             |      |                   |      |                   |      |                  |      |      | Lower                              | Upper |
| DF008       | -9.4 | -7.6              | -6.9 | -6.6              | -5.9 | -7.12            | 0.91 | 0.20 | -7.54                              | -6.71 |
| DF009       | -7.8 | -7.0              | -6.4 | -6.1              | -5.1 | -6.51            | 0.71 | 0.15 | -6.83                              | -6.19 |
| DF010       | -8.7 | -7.4              | -7.1 | -6.7              | -5.1 | -6.99            | 0.74 | 0.16 | -7.33                              | -6.66 |
| DF011       | -7.9 | -6.8              | -6.3 | -5.9              | -5.2 | -6.40            | 0.71 | 0.16 | -6.73                              | -6.08 |
| DF012       | -7.9 | -7.0              | -6.5 | -6.0              | -5.0 | -6.51            | 0.74 | 0.16 | -6.85                              | -6.18 |
| DG001       | -5.8 | -5.4              | -5.2 | -4.9              | -4.4 | -5.10            | 0.38 | 0.08 | -5.27                              | -4.93 |
| DG002       | -5.5 | -4.9              | -4.7 | -4.4              | -4.0 | -4.69            | 0.39 | 0.09 | -4.87                              | -4.51 |
| DG003       | -5.8 | -5.3              | -5.1 | -4.8              | -4.2 | -5.03            | 0.43 | 0.09 | -5.23                              | -4.84 |
| DG004       | -7.1 | -6.0              | -5.7 | -5.4              | -5.0 | -5.79            | 0.50 | 0.11 | -6.02                              | -5.56 |
| DG005       | -6.2 | -5.4              | -5.2 | -4.9              | -4.4 | -5.17            | 0.41 | 0.09 | -5.35                              | -4.98 |
| DG006       | -5.4 | -4.8              | -4.6 | -4.5              | -4.0 | -4.64            | 0.36 | 0.08 | -4.80                              | -4.47 |
| DH001       | -5.3 | -5.0              | -4.6 | -4.3              | -4.0 | -4.62            | 0.41 | 0.09 | -4.81                              | -4.43 |
| DH002       | -5.4 | -5.2              | -4.7 | -4.4              | -3.8 | -4.73            | 0.49 | 0.11 | -4.96                              | -4.51 |
| DH003       | -5.3 | -4.9              | -4.6 | -4.3              | -4.0 | -4.58            | 0.38 | 0.08 | -4.75                              | -4.41 |
| DH004       | -5.4 | -4.9              | -4.7 | -4.3              | -4.1 | -4.67            | 0.41 | 0.09 | -4.86                              | -4.49 |
| DH005       | -7.0 | -6.4              | -5.8 | -5.3              | -4.8 | -5.82            | 0.64 | 0.14 | -6.11                              | -5.53 |
| DH006       | -5.4 | -4.9              | -4.6 | -4.3              | -3.8 | -4.64            | 0.45 | 0.10 | -4.84                              | -4.43 |
| DH007       | -5.0 | -4.5              | -4.3 | -3.9              | -3.4 | -4.24            | 0.40 | 0.09 | -4.42                              | -4.06 |
| DH008       | -5.9 | -5.3              | -5.1 | -4.7              | -4.3 | -5.11            | 0.45 | 0.10 | -5.31                              | -4.91 |
| DH009       | -4.7 | -4.3              | -4.1 | -3.9              | -3.3 | -4.05            | 0.38 | 0.08 | -4.23                              | -3.88 |
| DH010       | -5.6 | -5.1              | -4.8 | -4.5              | -4.0 | -4.78            | 0.41 | 0.09 | -4.96                              | -4.59 |
| DH011       | -4.7 | -4.2              | -3.9 | -3.8              | -3.3 | -3.97            | 0.32 | 0.07 | -4.11                              | -3.82 |
| DH012       | -6.1 | -5.4              | -5.3 | -4.9              | -4.5 | -5.20            | 0.40 | 0.09 | -5.38                              | -5.02 |
| DH013       | -5.2 | -4.8              | -4.5 | -4.1              | -3.7 | -4.47            | 0.45 | 0.10 | -4.67                              | -4.26 |
| DH014       | -7.9 | -7.1              | -6.8 | -6.2              | -5.0 | -6.56            | 0.75 | 0.16 | -6.90                              | -6.22 |
| DH015       | -7.0 | -6.4              | -5.9 | -5.3              | -4.6 | -5.88            | 0.65 | 0.14 | -6.18                              | -5.58 |
| DH016       | -5.6 | -4.6              | -4.5 | -4.3              | -3.9 | -4.53            | 0.41 | 0.09 | -4.72                              | -4.35 |
| DH017       | -4.7 | -4.1              | -3.9 | -3.6              | -3.2 | -3.88            | 0.40 | 0.09 | -4.06                              | -3.69 |
| DI001       | -7.6 | -7.0              | -6.5 | -6.0              | -5.2 | -6.46            | 0.70 | 0.15 | -6.78                              | -6.14 |
| DJ001       | -8.8 | -7.3              | -6.7 | -5.8              | -5.2 | -6.67            | 1.00 | 0.22 | -7.13                              | -6.21 |
| DJ002       | -3.9 | -3.6              | -3.3 | -3.1              | -2.8 | -3.35            | 0.29 | 0.06 | -3.48                              | -3.22 |

| Compound ID | Min   | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|-------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |       |                |      |                |      |               |      |      | Lower                           | Upper |
| DK001       | -7.4  | -6.0           | -5.3 | -4.9           | -4.1 | -5.46         | 0.79 | 0.17 | -5.82                           | -5.10 |
| DL001       | -6.2  | -5.5           | -5.2 | -5.0           | -4.1 | -5.24         | 0.51 | 0.11 | -5.47                           | -5.01 |
| DL002       | -6.1  | -5.6           | -5.2 | -5.0           | -4.1 | -5.26         | 0.49 | 0.11 | -5.48                           | -5.03 |
| DL003       | -7.3  | -6.5           | -5.7 | -5.5           | -4.7 | -5.94         | 0.66 | 0.14 | -6.24                           | -5.64 |
| DL004       | -7.6  | -6.7           | -6.0 | -5.8           | -4.5 | -6.20         | 0.76 | 0.17 | -6.55                           | -5.85 |
| KA001       | -9.7  | -8.2           | -7.7 | -7.0           | -5.9 | -7.61         | 0.94 | 0.21 | -8.04                           | -7.18 |
| KA002       | -10.0 | -9.5           | -7.8 | -7.5           | -6.6 | -8.25         | 1.16 | 0.25 | -8.78                           | -7.73 |
| KA003       | -9.1  | -8.2           | -7.8 | -6.7           | -5.9 | -7.57         | 0.94 | 0.21 | -8.00                           | -7.14 |
| KA004       | -9.4  | -8.3           | -7.6 | -6.8           | -6.1 | -7.61         | 0.95 | 0.21 | -8.04                           | -7.17 |
| KA005       | -8.9  | -8.0           | -7.6 | -6.7           | -5.8 | -7.38         | 0.94 | 0.21 | -7.81                           | -6.95 |
| KA006       | -8.9  | -8.1           | -7.5 | -6.8           | -6.2 | -7.48         | 0.73 | 0.16 | -7.81                           | -7.14 |
| KA007       | -9.0  | -8.1           | -7.6 | -6.7           | -6.1 | -7.46         | 0.79 | 0.17 | -7.82                           | -7.10 |
| KA008       | -8.6  | -8.0           | -7.6 | -6.8           | -6.1 | -7.45         | 0.74 | 0.16 | -7.79                           | -7.12 |
| KA009       | -8.6  | -8.0           | -7.7 | -7.0           | -6.0 | -7.51         | 0.75 | 0.16 | -7.85                           | -7.17 |
| KA010       | -9.3  | -8.5           | -7.6 | -6.6           | -6.2 | -7.60         | 0.98 | 0.21 | -8.04                           | -7.15 |
| KA011       | -9.5  | -8.6           | -8.1 | -7.2           | -6.4 | -7.97         | 0.91 | 0.20 | -8.38                           | -7.55 |
| KA012       | -9.4  | -8.8           | -7.9 | -7.3           | -6.8 | -8.02         | 0.87 | 0.19 | -8.42                           | -7.62 |
| KA013       | -10.3 | -9.2           | -8.8 | -7.8           | -6.9 | -8.60         | 0.99 | 0.22 | -9.05                           | -8.15 |
| KA014       | -9.1  | -8.8           | -8.2 | -7.0           | -6.6 | -7.96         | 0.91 | 0.20 | -8.37                           | -7.54 |
| KA015       | -9.2  | -7.9           | -7.6 | -6.9           | -5.8 | -7.40         | 0.83 | 0.18 | -7.78                           | -7.03 |
| KA016       | -9.4  | -8.0           | -7.5 | -6.7           | -6.0 | -7.40         | 0.81 | 0.18 | -7.77                           | -7.04 |
| KA017       | -9.1  | -8.0           | -7.6 | -7.1           | -5.7 | -7.47         | 0.84 | 0.18 | -7.85                           | -7.09 |
| KA018       | -9.2  | -8.7           | -8.3 | -7.1           | -6.2 | -7.98         | 0.92 | 0.20 | -8.40                           | -7.56 |
| KA019       | -11.0 | -8.4           | -8.2 | -7.8           | -7.2 | -8.38         | 1.04 | 0.23 | -8.85                           | -7.91 |
| KA020       | -9.5  | -8.1           | -7.8 | -6.8           | -6.0 | -7.60         | 0.94 | 0.21 | -8.03                           | -7.17 |
| KA021       | -9.5  | -8.4           | -7.9 | -7.3           | -5.9 | -7.82         | 0.95 | 0.21 | -8.26                           | -7.39 |
| KA022       | -9.2  | -8.5           | -7.8 | -7.0           | -5.9 | -7.81         | 0.95 | 0.21 | -8.24                           | -7.38 |
| KA023       | -10.1 | -8.4           | -7.9 | -7.1           | -6.4 | -7.87         | 0.98 | 0.21 | -8.31                           | -7.42 |
| KA024       | -8.6  | -8.0           | -7.3 | -6.7           | -6.0 | -7.28         | 0.79 | 0.17 | -7.64                           | -6.92 |
| KA025       | -9.4  | -7.6           | -7.0 | -6.6           | -5.8 | -7.14         | 0.97 | 0.21 | -7.59                           | -6.70 |
| KA026       | -9.5  | -8.3           | -7.6 | -6.8           | -5.9 | -7.53         | 1.01 | 0.22 | -7.99                           | -7.07 |

| Compound ID | Min  | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |      |                |      |                |      |               |      |      | Lower                           | Upper |
| KA027       | -9.0 | -8.4           | -7.8 | -6.8           | -5.8 | -7.66         | 0.90 | 0.20 | -8.07                           | -7.25 |
| KA028       | -8.8 | -8.1           | -7.5 | -6.6           | -5.7 | -7.42         | 0.98 | 0.21 | -7.86                           | -6.97 |
| KA029       | -9.2 | -8.3           | -7.5 | -6.9           | -6.4 | -7.60         | 0.87 | 0.19 | -8.00                           | -7.21 |
| KA030       | -9.9 | -8.3           | -8.0 | -7.0           | -6.4 | -7.81         | 0.92 | 0.20 | -8.23                           | -7.39 |
| KA031       | -8.9 | -8.4           | -7.5 | -6.8           | -6.1 | -7.56         | 0.87 | 0.19 | -7.95                           | -7.16 |
| KA032       | -9.3 | -8.3           | -7.9 | -7.1           | -6.2 | -7.80         | 0.92 | 0.20 | -8.22                           | -7.39 |
| KA033       | -9.7 | -8.0           | -7.3 | -6.7           | -5.9 | -7.40         | 0.99 | 0.22 | -7.85                           | -6.95 |
| KA034       | -8.7 | -7.5           | -7.2 | -6.9           | -6.0 | -7.23         | 0.72 | 0.16 | -7.56                           | -6.90 |
| KA035       | -9.2 | -8.3           | -7.7 | -6.9           | -6.2 | -7.67         | 0.88 | 0.19 | -8.07                           | -7.26 |
| KA036       | -8.7 | -8.2           | -7.4 | -6.8           | -5.8 | -7.44         | 0.86 | 0.19 | -7.83                           | -7.05 |
| KA037       | -8.4 | -7.6           | -7.2 | -6.6           | -5.9 | -7.13         | 0.75 | 0.16 | -7.47                           | -6.79 |
| KA038       | -8.8 | -8.4           | -7.6 | -6.7           | -5.9 | -7.50         | 0.89 | 0.19 | -7.91                           | -7.09 |
| KA039       | -8.8 | -8.1           | -7.7 | -6.8           | -6.5 | -7.60         | 0.73 | 0.16 | -7.93                           | -7.26 |
| KA040       | -9.2 | -8.0           | -7.1 | -6.7           | -5.7 | -7.37         | 0.99 | 0.22 | -7.82                           | -6.92 |
| KA041       | -8.6 | -8.3           | -7.6 | -6.9           | -6.2 | -7.61         | 0.76 | 0.17 | -7.96                           | -7.27 |
| KA042       | -9.0 | -8.1           | -7.5 | -7.0           | -5.8 | -7.47         | 0.86 | 0.19 | -7.86                           | -7.08 |
| KA043       | -8.7 | -8.1           | -7.4 | -6.9           | -6.1 | -7.48         | 0.78 | 0.17 | -7.84                           | -7.12 |
| KA044       | -9.2 | -8.4           | -7.9 | -7.0           | -6.2 | -7.76         | 0.90 | 0.20 | -8.17                           | -7.35 |
| KA046       | -9.0 | -8.2           | -7.9 | -6.8           | -5.8 | -7.57         | 0.88 | 0.19 | -7.97                           | -7.16 |
| KA047       | -9.4 | -8.2           | -7.7 | -7.2           | -6.1 | -7.64         | 0.86 | 0.19 | -8.04                           | -7.25 |
| KA049       | -8.7 | -8.4           | -7.5 | -6.5           | -5.9 | -7.48         | 0.95 | 0.21 | -7.92                           | -7.05 |
| KA050       | -9.3 | -7.4           | -7.0 | -6.2           | -5.3 | -6.82         | 0.93 | 0.20 | -7.25                           | -6.40 |
| KA051       | -8.5 | -7.8           | -7.4 | -6.6           | -5.7 | -7.31         | 0.85 | 0.18 | -7.70                           | -6.93 |
| KA052       | -9.2 | -8.1           | -7.4 | -6.5           | -5.8 | -7.30         | 1.05 | 0.23 | -7.78                           | -6.82 |
| KA053       | -8.7 | -7.8           | -7.3 | -6.6           | -5.4 | -7.13         | 0.97 | 0.21 | -7.57                           | -6.68 |
| KA054       | -8.3 | -7.6           | -7.0 | -6.3           | -5.3 | -6.90         | 0.86 | 0.19 | -7.29                           | -6.51 |
| KA055       | -8.6 | -8.0           | -7.4 | -6.8           | -6.2 | -7.37         | 0.77 | 0.17 | -7.72                           | -7.02 |
| KA056       | -8.7 | -8.1           | -7.4 | -6.7           | -5.6 | -7.26         | 0.95 | 0.21 | -7.69                           | -6.82 |
| KA057       | -8.4 | -8.0           | -7.5 | -6.6           | -6.1 | -7.31         | 0.80 | 0.17 | -7.68                           | -6.95 |
| KA058       | -8.6 | -7.8           | -7.3 | -6.4           | -5.4 | -7.12         | 0.87 | 0.19 | -7.51                           | -6.72 |
| KA059       | -8.5 | -7.7           | -7.2 | -6.8           | -6.0 | -7.22         | 0.77 | 0.17 | -7.57                           | -6.87 |

| Compound ID | Min   | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|-------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |       |                |      |                |      |               |      |      | Lower                           | Upper |
| KA060       | -9.9  | -9.2           | -8.5 | -7.6           | -6.8 | -8.48         | 0.90 | 0.20 | -8.89                           | -8.06 |
| KA061       | -8.5  | -8.3           | -7.4 | -6.9           | -5.9 | -7.50         | 0.86 | 0.19 | -7.89                           | -7.10 |
| KA062       | -8.5  | -7.9           | -7.5 | -6.7           | -5.8 | -7.34         | 0.75 | 0.16 | -7.68                           | -7.00 |
| KA064       | -9.8  | -8.8           | -8.3 | -7.6           | -5.8 | -8.07         | 1.15 | 0.25 | -8.59                           | -7.55 |
| KA065       | -10.7 | -9.0           | -8.6 | -7.5           | -6.9 | -8.46         | 1.10 | 0.24 | -8.96                           | -7.96 |
| KA066       | -10.3 | -8.6           | -8.0 | -7.2           | -6.6 | -7.97         | 0.90 | 0.20 | -8.38                           | -7.56 |
| KA067       | -10.4 | -8.9           | -8.4 | -7.5           | -6.4 | -8.33         | 1.03 | 0.22 | -8.80                           | -7.87 |
| KA068       | -8.9  | -7.8           | -7.1 | -6.5           | -5.3 | -7.08         | 0.95 | 0.21 | -7.51                           | -6.64 |
| KA069       | -9.6  | -8.4           | -7.6 | -7.1           | -6.3 | -7.72         | 0.94 | 0.20 | -8.15                           | -7.30 |
| KA070       | -8.6  | -8.1           | -7.7 | -6.9           | -5.8 | -7.39         | 0.84 | 0.18 | -7.77                           | -7.01 |
| KA071       | -9.5  | -8.6           | -7.8 | -7.2           | -6.3 | -7.88         | 0.96 | 0.21 | -8.32                           | -7.44 |
| KA072       | -8.9  | -7.9           | -7.2 | -6.7           | -5.7 | -7.36         | 0.86 | 0.19 | -7.75                           | -6.97 |
| KA073       | -9.2  | -8.2           | -7.3 | -6.9           | -6.0 | -7.50         | 0.93 | 0.20 | -7.92                           | -7.07 |
| KA074       | -9.4  | -7.9           | -7.3 | -6.5           | -6.0 | -7.34         | 0.91 | 0.20 | -7.75                           | -6.92 |
| KA075       | -8.5  | -7.4           | -6.9 | -6.5           | -5.8 | -7.04         | 0.84 | 0.18 | -7.42                           | -6.66 |
| KA076       | -8.7  | -8.1           | -7.3 | -6.6           | -5.5 | -7.28         | 0.82 | 0.18 | -7.66                           | -6.91 |
| KA077       | -8.7  | -8.2           | -7.1 | -6.3           | -5.6 | -7.17         | 1.08 | 0.24 | -7.66                           | -6.68 |
| KA078       | -8.7  | -7.9           | -7.4 | -7.0           | -5.9 | -7.45         | 0.81 | 0.18 | -7.81                           | -7.08 |
| KA079       | -10.6 | -9.4           | -8.4 | -7.6           | -6.6 | -8.46         | 1.05 | 0.23 | -8.94                           | -7.98 |
| KA080       | -8.8  | -7.7           | -7.4 | -6.7           | -5.5 | -7.24         | 0.79 | 0.17 | -7.60                           | -6.88 |
| KA081       | -9.3  | -8.2           | -7.5 | -6.6           | -5.7 | -7.40         | 0.98 | 0.21 | -7.85                           | -6.95 |
| KA082       | -9.1  | -7.7           | -7.3 | -6.8           | -5.7 | -7.20         | 0.93 | 0.20 | -7.63                           | -6.78 |
| KA083       | -8.7  | -7.9           | -7.4 | -6.8           | -5.7 | -7.36         | 0.88 | 0.19 | -7.76                           | -6.96 |
| KA084       | -9.1  | -7.9           | -7.6 | -7.0           | -6.1 | -7.45         | 0.80 | 0.18 | -7.82                           | -7.09 |
| KA085       | -9.0  | -7.6           | -7.2 | -6.6           | -5.8 | -7.15         | 0.80 | 0.17 | -7.52                           | -6.79 |
| KA086       | -10.7 | -9.3           | -8.3 | -7.8           | -7.0 | -8.52         | 1.07 | 0.23 | -9.01                           | -8.03 |
| KA088       | -10.9 | -8.6           | -8.2 | -7.3           | -6.3 | -8.04         | 1.08 | 0.23 | -8.53                           | -7.55 |
| KA089       | -10.2 | -8.6           | -8.3 | -7.4           | -6.3 | -7.98         | 0.93 | 0.20 | -8.40                           | -7.56 |
| KA090       | -12.0 | -9.4           | -8.4 | -8.3           | -7.0 | -8.66         | 1.15 | 0.25 | -9.18                           | -8.14 |
| KA091       | -11.6 | -9.3           | -8.2 | -7.3           | -6.7 | -8.37         | 1.24 | 0.27 | -8.93                           | -7.80 |
| KA092       | -10.6 | -8.9           | -8.4 | -7.5           | -6.7 | -8.28         | 1.03 | 0.23 | -8.75                           | -7.81 |

| Compound ID | Min   | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|-------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |       |                |      |                |      |               |      |      | Lower                           | Upper |
| KA093       | -10.0 | -8.6           | -8.4 | -7.8           | -6.9 | -8.32         | 0.88 | 0.19 | -8.72                           | -7.92 |
| KA094       | -10.3 | -9.1           | -8.1 | -7.8           | -6.9 | -8.29         | 0.96 | 0.21 | -8.72                           | -7.85 |
| KA095       | -11.3 | -9.0           | -8.1 | -7.4           | -6.7 | -8.30         | 1.16 | 0.25 | -8.82                           | -7.77 |
| KA096       | -11.4 | -8.5           | -8.1 | -7.7           | -6.4 | -8.20         | 1.08 | 0.23 | -8.69                           | -7.71 |
| KA097       | -10.3 | -9.0           | -7.9 | -7.6           | -6.7 | -8.16         | 1.00 | 0.22 | -8.62                           | -7.70 |
| KA098       | -11.3 | -9.2           | -8.2 | -7.3           | -6.7 | -8.40         | 1.20 | 0.26 | -8.95                           | -7.85 |
| KA099       | -9.6  | -8.3           | -8.1 | -7.6           | -6.7 | -8.10         | 0.81 | 0.18 | -8.46                           | -7.73 |
| KA100       | -11.6 | -9.3           | -8.6 | -7.9           | -7.0 | -8.62         | 1.16 | 0.25 | -9.15                           | -8.09 |
| KA101       | -10.8 | -9.0           | -7.8 | -7.2           | -6.5 | -8.11         | 1.08 | 0.23 | -8.60                           | -7.62 |
| KA102       | -10.6 | -8.8           | -8.1 | -7.5           | -6.5 | -8.10         | 1.07 | 0.23 | -8.59                           | -7.62 |
| KA103       | -9.5  | -8.7           | -8.3 | -7.5           | -6.7 | -8.08         | 0.87 | 0.19 | -8.47                           | -7.68 |
| KA104       | -11.1 | -8.5           | -7.8 | -7.4           | -5.9 | -7.80         | 1.13 | 0.25 | -8.32                           | -7.29 |
| KA105       | -11.4 | -9.2           | -8.0 | -7.8           | -6.7 | -8.36         | 1.12 | 0.24 | -8.87                           | -7.85 |
| KA106       | -11.1 | -8.4           | -8.1 | -7.7           | -6.2 | -8.10         | 1.11 | 0.24 | -8.60                           | -7.60 |
| KA107       | -10.3 | -9.2           | -8.4 | -7.6           | -6.6 | -8.27         | 1.06 | 0.23 | -8.75                           | -7.79 |
| KA108       | -9.5  | -8.3           | -7.1 | -6.7           | -6.0 | -7.47         | 1.03 | 0.22 | -7.94                           | -7.00 |
| KA109       | -9.8  | -8.8           | -8.0 | -7.4           | -6.6 | -8.14         | 1.05 | 0.23 | -8.62                           | -7.67 |
| KA110       | -9.7  | -8.8           | -7.8 | -7.0           | -6.1 | -7.92         | 1.08 | 0.24 | -8.41                           | -7.43 |
| KA113       | -11.7 | -9.7           | -8.5 | -7.9           | -7.2 | -8.70         | 1.20 | 0.26 | -9.25                           | -8.15 |
| KA114       | -8.6  | -8.0           | -7.6 | -7.1           | -5.9 | -7.46         | 0.74 | 0.16 | -7.80                           | -7.13 |
| KA115       | -10.1 | -8.8           | -8.6 | -8.1           | -7.2 | -8.54         | 0.84 | 0.18 | -8.92                           | -8.16 |
| KA116       | -9.6  | -8.4           | -7.9 | -7.4           | -6.1 | -7.88         | 0.95 | 0.21 | -8.31                           | -7.44 |
| KA120       | -8.4  | -8.0           | -7.4 | -6.8           | -5.5 | -7.36         | 0.83 | 0.18 | -7.74                           | -6.98 |
| KA121       | -10.2 | -8.7           | -7.7 | -7.2           | -6.3 | -7.99         | 0.98 | 0.21 | -8.43                           | -7.55 |
| KA122       | -9.4  | -9.0           | -7.8 | -7.5           | -6.6 | -8.08         | 0.91 | 0.20 | -8.49                           | -7.67 |
| KA126       | -8.6  | -7.2           | -6.8 | -6.3           | -5.5 | -6.77         | 0.74 | 0.16 | -7.11                           | -6.43 |
| KA127       | -8.9  | -7.8           | -7.3 | -6.5           | -5.9 | -7.34         | 0.90 | 0.20 | -7.75                           | -6.93 |
| KA128       | -8.7  | -8.0           | -7.0 | -6.5           | -6.0 | -7.22         | 0.83 | 0.18 | -7.59                           | -6.84 |
| KA129       | -8.9  | -7.9           | -7.0 | -6.3           | -5.7 | -7.16         | 0.89 | 0.19 | -7.56                           | -6.75 |
| KA130       | -8.6  | -8.0           | -7.6 | -7.0           | -6.2 | -7.58         | 0.69 | 0.15 | -7.89                           | -7.26 |
| KA131       | -10.4 | -8.9           | -8.2 | -7.4           | -6.5 | -8.24         | 1.07 | 0.23 | -8.72                           | -7.75 |

| Compound ID | Min   | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|-------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |       |                |      |                |      |               |      |      | Lower                           | Upper |
| KA132       | -8.0  | -7.8           | -7.1 | -6.6           | -5.9 | -7.14         | 0.67 | 0.15 | -7.44                           | -6.83 |
| KA133       | -9.5  | -8.2           | -6.8 | -5.9           | -5.2 | -7.10         | 1.37 | 0.30 | -7.72                           | -6.47 |
| KA134       | -10.3 | -8.4           | -7.7 | -6.5           | -4.9 | -7.55         | 1.43 | 0.31 | -8.20                           | -6.90 |
| KA135       | -9.8  | -8.2           | -7.6 | -6.8           | -5.7 | -7.61         | 0.96 | 0.21 | -8.05                           | -7.17 |
| KA136       | -9.2  | -8.4           | -7.5 | -7.3           | -6.0 | -7.66         | 0.88 | 0.19 | -8.06                           | -7.25 |
| KA137       | -9.0  | -8.5           | -7.9 | -7.2           | -6.2 | -7.74         | 0.83 | 0.18 | -8.12                           | -7.37 |
| KA138       | -9.2  | -8.2           | -7.9 | -7.2           | -5.9 | -7.76         | 0.81 | 0.18 | -8.13                           | -7.39 |
| KA139       | -10.0 | -8.6           | -8.3 | -7.0           | -5.9 | -7.90         | 1.11 | 0.24 | -8.40                           | -7.39 |
| KA142       | -8.9  | -8.4           | -7.8 | -6.8           | -6.0 | -7.66         | 0.91 | 0.20 | -8.07                           | -7.25 |
| KA144       | -10.3 | -8.8           | -8.1 | -7.7           | -6.7 | -8.29         | 1.05 | 0.23 | -8.77                           | -7.81 |
| KA145       | -10.5 | -9.1           | -8.1 | -7.7           | -6.7 | -8.38         | 1.07 | 0.23 | -8.86                           | -7.89 |
| KA146       | -8.8  | -8.0           | -7.9 | -6.7           | -6.1 | -7.47         | 0.82 | 0.18 | -7.84                           | -7.10 |
| KA148       | -10.0 | -8.7           | -8.2 | -7.2           | -5.9 | -7.94         | 1.12 | 0.25 | -8.45                           | -7.43 |
| KA149       | -10.3 | -8.9           | -8.2 | -7.3           | -6.5 | -8.16         | 1.12 | 0.24 | -8.67                           | -7.65 |
| KA150       | -9.2  | -8.4           | -7.9 | -7.1           | -6.0 | -7.82         | 0.87 | 0.19 | -8.22                           | -7.43 |
| KA151       | -8.7  | -8.1           | -7.4 | -6.8           | -6.0 | -7.35         | 0.88 | 0.19 | -7.75                           | -6.95 |
| KA152       | -8.7  | -7.6           | -7.2 | -6.5           | -5.3 | -7.09         | 0.94 | 0.21 | -7.52                           | -6.66 |
| KA153       | -10.1 | -8.3           | -7.9 | -7.4           | -6.4 | -8.06         | 0.99 | 0.22 | -8.51                           | -7.61 |
| KA154       | -7.1  | -6.8           | -6.3 | -5.9           | -4.8 | -6.26         | 0.66 | 0.14 | -6.56                           | -5.96 |
| KA155       | -8.5  | -8.2           | -7.7 | -6.8           | -6.1 | -7.45         | 0.79 | 0.17 | -7.81                           | -7.09 |
| KA156       | -9.0  | -8.0           | -7.3 | -6.9           | -5.6 | -7.42         | 0.93 | 0.20 | -7.85                           | -7.00 |
| KA157       | -8.9  | -8.3           | -7.9 | -7.0           | -6.6 | -7.78         | 0.75 | 0.16 | -8.12                           | -7.44 |
| KA158       | -9.5  | -8.3           | -8.0 | -7.3           | -6.1 | -7.78         | 0.84 | 0.18 | -8.16                           | -7.39 |
| KA159       | -11.1 | -8.7           | -8.3 | -7.2           | -6.3 | -8.08         | 1.09 | 0.24 | -8.58                           | -7.59 |
| KA160       | -10.4 | -9.3           | -8.4 | -7.5           | -6.6 | -8.36         | 1.13 | 0.25 | -8.87                           | -7.85 |
| KA161       | -9.3  | -8.1           | -7.6 | -7.2           | -5.9 | -7.56         | 0.84 | 0.18 | -7.94                           | -7.18 |
| KA162       | -9.6  | -7.9           | -7.6 | -7.0           | -5.7 | -7.59         | 0.90 | 0.20 | -7.99                           | -7.18 |
| KA163       | -8.7  | -8.2           | -7.5 | -6.8           | -5.4 | -7.45         | 0.84 | 0.18 | -7.84                           | -7.07 |
| KA164       | -8.8  | -8.1           | -7.5 | -6.7           | -6.0 | -7.48         | 0.83 | 0.18 | -7.86                           | -7.10 |
| KA165       | -11.4 | -10.4          | -9.2 | -8.8           | -7.4 | -9.40         | 1.14 | 0.25 | -9.92                           | -8.88 |
| KA166       | -8.0  | -7.5           | -7.0 | -6.3           | -5.5 | -6.89         | 0.78 | 0.17 | -7.24                           | -6.54 |

| Compound ID | Min   | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|-------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |       |                |      |                |      |               |      |      | Lower                           | Upper |
| KA168       | -10.1 | -8.6           | -8.1 | -7.2           | -6.5 | -8.07         | 1.04 | 0.23 | -8.54                           | -7.60 |
| KA169       | -9.2  | -7.7           | -7.3 | -6.5           | -5.6 | -7.24         | 0.95 | 0.21 | -7.67                           | -6.80 |
| KA170       | -8.9  | -8.5           | -7.7 | -6.9           | -6.3 | -7.65         | 0.85 | 0.19 | -8.04                           | -7.26 |
| KA171       | -9.6  | -8.1           | -7.8 | -7.2           | -5.9 | -7.65         | 0.79 | 0.17 | -8.01                           | -7.29 |
| KA172       | -9.4  | -8.0           | -7.5 | -7.2           | -6.0 | -7.53         | 0.79 | 0.17 | -7.89                           | -7.17 |
| KA173       | -11.4 | -9.1           | -8.1 | -7.8           | -6.7 | -8.43         | 1.15 | 0.25 | -8.95                           | -7.91 |
| KA174       | -9.1  | -8.2           | -7.6 | -6.8           | -6.0 | -7.62         | 0.99 | 0.22 | -8.08                           | -7.17 |
| KA175       | -10.9 | -8.7           | -7.8 | -7.4           | -6.5 | -8.09         | 1.17 | 0.25 | -8.62                           | -7.55 |
| KA176       | -11.4 | -8.7           | -8.2 | -7.5           | -6.1 | -8.09         | 1.15 | 0.25 | -8.62                           | -7.57 |
| KA177       | -9.7  | -8.1           | -7.7 | -6.9           | -5.8 | -7.51         | 0.94 | 0.21 | -7.94                           | -7.08 |
| KA178       | -9.1  | -8.2           | -7.6 | -6.7           | -6.3 | -7.56         | 0.85 | 0.18 | -7.95                           | -7.18 |
| KA179       | -11.4 | -9.4           | -8.4 | -7.8           | -6.5 | -8.55         | 1.30 | 0.28 | -9.15                           | -7.96 |
| KB001       | -8.8  | -7.5           | -6.9 | -6.0           | -5.4 | -6.90         | 0.96 | 0.21 | -7.34                           | -6.46 |
| KB002       | -8.5  | -7.4           | -7.1 | -6.0           | -5.2 | -6.90         | 0.95 | 0.21 | -7.33                           | -6.46 |
| KB003       | -9.8  | -8.0           | -7.2 | -6.3           | -5.6 | -7.18         | 1.04 | 0.23 | -7.65                           | -6.71 |
| KB004       | -8.5  | -7.9           | -6.9 | -6.3           | -5.2 | -6.98         | 0.95 | 0.21 | -7.41                           | -6.54 |
| KB005       | -9.7  | -8.0           | -6.8 | -6.2           | -5.2 | -7.03         | 1.08 | 0.24 | -7.53                           | -6.54 |
| KB006       | -9.4  | -7.7           | -7.3 | -6.9           | -5.8 | -7.24         | 0.93 | 0.20 | -7.66                           | -6.82 |
| KB007       | -9.3  | -8.1           | -7.4 | -6.6           | -5.7 | -7.32         | 1.00 | 0.22 | -7.78                           | -6.87 |
| KB008       | -8.2  | -7.7           | -7.0 | -6.5           | -5.5 | -6.99         | 0.85 | 0.18 | -7.37                           | -6.60 |
| KB009       | -9.4  | -7.6           | -7.2 | -6.5           | -5.6 | -7.18         | 0.95 | 0.21 | -7.62                           | -6.75 |
| KB010       | -8.8  | -7.4           | -7.0 | -6.3           | -5.4 | -6.90         | 0.89 | 0.19 | -7.30                           | -6.49 |
| KB013       | -8.6  | -7.8           | -7.1 | -6.6           | -5.2 | -7.11         | 0.95 | 0.21 | -7.54                           | -6.68 |
| KB014       | -8.8  | -7.5           | -7.0 | -6.2           | -5.7 | -7.06         | 0.92 | 0.20 | -7.48                           | -6.64 |
| KB015       | -9.2  | -7.8           | -7.4 | -6.9           | -5.8 | -7.33         | 1.00 | 0.22 | -7.78                           | -6.87 |
| KB016       | -9.7  | -7.8           | -7.4 | -6.7           | -5.8 | -7.40         | 0.97 | 0.21 | -7.84                           | -6.95 |
| KB017       | -9.1  | -7.5           | -6.8 | -6.1           | -5.3 | -6.87         | 0.98 | 0.21 | -7.31                           | -6.42 |
| KB019       | -8.3  | -7.5           | -7.0 | -6.6           | -5.3 | -6.92         | 0.82 | 0.18 | -7.29                           | -6.55 |
| KB020       | -9.1  | -7.7           | -7.3 | -6.3           | -5.7 | -7.23         | 1.03 | 0.22 | -7.70                           | -6.76 |
| KB023       | -7.8  | -6.7           | -6.3 | -5.9           | -4.7 | -6.30         | 0.92 | 0.20 | -6.72                           | -5.88 |
| KB024       | -7.8  | -6.9           | -6.3 | -5.7           | -4.9 | -6.28         | 0.92 | 0.20 | -6.70                           | -5.86 |

| Compound ID | Min   | 25% Percentile | Med   | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|-------|----------------|-------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |       |                |       |                |      |               |      |      | Lower                           | Upper |
| KB025       | -8.9  | -7.6           | -7.2  | -6.2           | -5.3 | -6.99         | 1.01 | 0.22 | -7.44                           | -6.53 |
| KB026       | -8.2  | -7.7           | -6.8  | -5.9           | -5.3 | -6.86         | 0.98 | 0.21 | -7.30                           | -6.41 |
| KB027       | -8.4  | -6.8           | -6.3  | -6.1           | -5.2 | -6.44         | 0.81 | 0.18 | -6.80                           | -6.07 |
| KB028       | -9.7  | -8.0           | -7.3  | -6.3           | -5.4 | -7.29         | 1.09 | 0.24 | -7.78                           | -6.79 |
| KB029       | -9.9  | -7.9           | -7.2  | -6.4           | -5.4 | -7.19         | 1.05 | 0.23 | -7.67                           | -6.71 |
| KB030       | -12.3 | -10.5          | -9.6  | -8.3           | -7.0 | -9.39         | 1.44 | 0.31 | -10.05                          | -8.74 |
| KB031       | -12.5 | -11.0          | -10.0 | -8.5           | -8.0 | -9.80         | 1.38 | 0.30 | -10.42                          | -9.17 |
| KB032       | -11.9 | -10.4          | -9.2  | -8.2           | -6.3 | -9.26         | 1.42 | 0.31 | -9.91                           | -8.61 |
| KB033       | -11.3 | -10.1          | -9.3  | -8.7           | -7.5 | -9.43         | 1.03 | 0.22 | -9.90                           | -8.96 |
| KB034       | -12.1 | -9.7           | -8.7  | -8.3           | -7.7 | -9.22         | 1.26 | 0.28 | -9.79                           | -8.64 |
| KB035       | -11.0 | -9.3           | -8.4  | -7.5           | -6.6 | -8.50         | 1.27 | 0.28 | -9.08                           | -7.93 |
| KB036       | -9.1  | -7.8           | -7.1  | -6.1           | -5.4 | -7.00         | 1.00 | 0.22 | -7.45                           | -6.54 |
| KB038       | -9.1  | -8.0           | -7.1  | -6.3           | -5.5 | -7.18         | 0.97 | 0.21 | -7.62                           | -6.73 |
| KB039       | -8.8  | -7.3           | -7.0  | -6.4           | -5.6 | -7.00         | 0.82 | 0.18 | -7.38                           | -6.63 |
| KB040       | -8.1  | -7.4           | -6.7  | -6.0           | -5.1 | -6.68         | 0.86 | 0.19 | -7.07                           | -6.29 |
| KB041       | -9.6  | -7.9           | -7.4  | -6.6           | -5.3 | -7.32         | 1.02 | 0.22 | -7.78                           | -6.85 |
| KB042       | -8.5  | -8.0           | -7.6  | -6.7           | -5.6 | -7.39         | 0.78 | 0.17 | -7.74                           | -7.03 |
| KB043       | -8.9  | -7.9           | -7.2  | -6.4           | -5.4 | -7.12         | 0.92 | 0.20 | -7.54                           | -6.70 |
| KB044       | -8.8  | -7.8           | -7.1  | -6.4           | -5.3 | -7.14         | 0.82 | 0.18 | -7.51                           | -6.76 |
| KB045       | -8.8  | -7.5           | -7.0  | -6.3           | -5.5 | -6.99         | 0.86 | 0.19 | -7.38                           | -6.59 |
| KB046       | -9.1  | -7.6           | -7.3  | -6.5           | -5.6 | -7.11         | 0.89 | 0.19 | -7.52                           | -6.70 |
| KB047       | -9.1  | -8.0           | -7.3  | -6.5           | -5.4 | -7.30         | 0.94 | 0.20 | -7.73                           | -6.88 |
| KB050       | -9.4  | -8.7           | -8.3  | -7.3           | -6.4 | -8.08         | 0.92 | 0.20 | -8.50                           | -7.66 |
| KC001       | -10.1 | -9.0           | -8.1  | -7.2           | -6.4 | -8.11         | 1.10 | 0.24 | -8.61                           | -7.61 |
| KC002       | -10.1 | -8.4           | -7.9  | -7.2           | -6.5 | -7.95         | 0.99 | 0.22 | -8.41                           | -7.50 |
| KC003       | -10.6 | -8.7           | -8.1  | -7.5           | -6.8 | -8.30         | 1.07 | 0.23 | -8.79                           | -7.81 |
| KC004       | -10.0 | -9.1           | -8.5  | -7.5           | -6.7 | -8.34         | 0.99 | 0.22 | -8.79                           | -7.89 |
| KC005       | -9.1  | -8.3           | -7.9  | -7.3           | -6.3 | -7.83         | 0.78 | 0.17 | -8.18                           | -7.47 |
| KC006       | -8.5  | -7.5           | -6.7  | -6.6           | -5.3 | -6.94         | 0.80 | 0.17 | -7.31                           | -6.58 |
| KC007       | -9.9  | -8.8           | -8.2  | -7.5           | -6.6 | -8.23         | 0.90 | 0.20 | -8.64                           | -7.82 |
| KC008       | -10.0 | -8.8           | -8.2  | -7.2           | -6.5 | -8.09         | 1.00 | 0.22 | -8.54                           | -7.63 |

| Compound ID | Min   | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|-------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |       |                |      |                |      |               |      |      | Lower                           | Upper |
| KC009       | -9.4  | -8.0           | -7.5 | -7.2           | -6.5 | -7.70         | 0.79 | 0.17 | -8.06                           | -7.35 |
| KC010       | -8.6  | -8.1           | -7.4 | -6.5           | -5.7 | -7.35         | 0.86 | 0.19 | -7.74                           | -6.96 |
| KD001       | -8.5  | -7.4           | -6.5 | -6.2           | -5.1 | -6.80         | 1.01 | 0.22 | -7.27                           | -6.34 |
| KD002       | -8.3  | -7.2           | -6.5 | -6.3           | -5.1 | -6.73         | 0.88 | 0.19 | -7.13                           | -6.33 |
| KE001       | -9.7  | -8.0           | -7.6 | -7.1           | -6.1 | -7.53         | 0.90 | 0.20 | -7.94                           | -7.13 |
| KE002       | -9.3  | -8.6           | -7.8 | -7.6           | -6.0 | -8.00         | 0.80 | 0.18 | -8.37                           | -7.63 |
| KE003       | -10.7 | -8.5           | -7.6 | -7.3           | -6.3 | -7.89         | 1.05 | 0.23 | -8.37                           | -7.41 |
| KE004       | -10.6 | -9.0           | -8.2 | -7.7           | -6.8 | -8.39         | 1.04 | 0.23 | -8.86                           | -7.91 |
| KE005       | -9.8  | -8.8           | -8.3 | -7.3           | -6.8 | -8.20         | 0.91 | 0.20 | -8.61                           | -7.79 |
| KE006       | -10.3 | -8.4           | -7.6 | -7.1           | -6.2 | -7.78         | 1.03 | 0.23 | -8.25                           | -7.31 |
| KE007       | -10.9 | -9.0           | -8.3 | -8.1           | -6.9 | -8.60         | 0.94 | 0.20 | -9.03                           | -8.18 |
| KE008       | -11.4 | -9.2           | -8.5 | -7.9           | -6.7 | -8.61         | 1.14 | 0.25 | -9.13                           | -8.10 |
| KE009       | -10.0 | -8.9           | -8.3 | -7.8           | -6.5 | -8.32         | 0.91 | 0.20 | -8.73                           | -7.90 |
| KE010       | -10.8 | -9.5           | -8.1 | -7.7           | -6.4 | -8.36         | 1.25 | 0.27 | -8.93                           | -7.79 |
| KE011       | -10.3 | -8.8           | -7.8 | -7.4           | -6.2 | -8.03         | 1.08 | 0.24 | -8.52                           | -7.54 |
| KE012       | -10.8 | -9.3           | -8.2 | -7.7           | -7.0 | -8.53         | 1.04 | 0.23 | -9.00                           | -8.05 |
| KF001       | -6.4  | -6.0           | -5.7 | -5.2           | -4.6 | -5.61         | 0.50 | 0.11 | -5.84                           | -5.38 |
| KF002       | -6.9  | -6.5           | -6.0 | -5.6           | -4.7 | -5.97         | 0.62 | 0.13 | -6.25                           | -5.69 |
| KF003       | -6.4  | -5.8           | -5.5 | -5.2           | -4.5 | -5.49         | 0.48 | 0.10 | -5.71                           | -5.27 |
| KF004       | -7.2  | -6.3           | -6.0 | -5.7           | -5.1 | -6.04         | 0.59 | 0.13 | -6.31                           | -5.77 |
| KF005       | -7.2  | -6.5           | -6.2 | -5.8           | -5.2 | -6.17         | 0.55 | 0.12 | -6.42                           | -5.92 |
| KF006       | -7.0  | -6.3           | -6.1 | -5.9           | -5.2 | -6.06         | 0.44 | 0.10 | -6.26                           | -5.86 |
| KF007       | -8.3  | -7.5           | -7.0 | -6.5           | -6.1 | -7.11         | 0.71 | 0.16 | -7.43                           | -6.79 |
| KG001       | -9.8  | -8.4           | -7.9 | -7.5           | -6.6 | -7.97         | 0.77 | 0.17 | -8.32                           | -7.62 |
| KH001       | -6.4  | -5.5           | -5.2 | -4.5           | -3.8 | -5.00         | 0.79 | 0.17 | -5.36                           | -4.64 |
| KI001       | -7.2  | -6.7           | -6.2 | -5.8           | -4.9 | -6.18         | 0.69 | 0.15 | -6.49                           | -5.86 |
| KJ001       | -8.4  | -7.2           | -6.5 | -5.8           | -5.4 | -6.59         | 0.90 | 0.20 | -7.00                           | -6.18 |
| ZA01        | -10.6 | -8.5           | -8.1 | -7.4           | -6.9 | -8.17         | 0.95 | 0.21 | -8.60                           | -7.74 |
| ZA02        | -10.4 | -8.9           | -8.3 | -7.7           | -7.2 | -8.37         | 0.94 | 0.21 | -8.80                           | -7.94 |
| ZA03        | -10.7 | -8.9           | -8.4 | -7.6           | -6.7 | -8.38         | 0.98 | 0.21 | -8.82                           | -7.93 |
| ZA04        | -10.7 | -9.2           | -8.3 | -7.6           | -7.2 | -8.52         | 1.10 | 0.24 | -9.02                           | -8.02 |

| Compound ID | Min   | 25% Percentile | Med  | 75% Percentile | Max  | Average Value | SD   | SEM  | 95% Confidence Interval of Mean |       |
|-------------|-------|----------------|------|----------------|------|---------------|------|------|---------------------------------|-------|
|             |       |                |      |                |      |               |      |      | Lower                           | Upper |
| ZA05        | -10.2 | -9.2           | -8.3 | -7.5           | -6.6 | -8.30         | 1.00 | 0.22 | -8.76                           | -7.84 |
| ZA06        | -10.6 | -9.2           | -8.4 | -7.6           | -7.2 | -8.39         | 0.94 | 0.20 | -8.82                           | -7.96 |
| ZA07        | -10.1 | -8.6           | -8.1 | -7.6           | -6.5 | -8.20         | 0.97 | 0.21 | -8.64                           | -7.76 |
| ZA08        | -11.0 | -10.5          | -9.0 | -8.0           | -7.1 | -9.12         | 1.30 | 0.28 | -9.72                           | -8.53 |
| ZA09        | -10.5 | -9.6           | -9.0 | -8.0           | -7.3 | -8.79         | 0.99 | 0.22 | -9.24                           | -8.33 |
| ZA11        | -9.7  | -8.8           | -8.2 | -7.4           | -6.5 | -8.17         | 0.93 | 0.20 | -8.59                           | -7.74 |
| ZA12        | -10.5 | -9.2           | -8.6 | -7.8           | -7.4 | -8.67         | 1.00 | 0.22 | -9.12                           | -8.21 |
| ZA13        | -10.1 | -8.7           | -7.9 | -7.5           | -6.4 | -8.09         | 1.02 | 0.22 | -8.55                           | -7.63 |
| ZA14        | -9.9  | -8.6           | -8.4 | -7.6           | -7.2 | -8.34         | 0.74 | 0.16 | -8.67                           | -8.00 |
| ZA15        | -9.7  | -8.9           | -8.1 | -7.5           | -6.9 | -8.21         | 0.82 | 0.18 | -8.59                           | -7.84 |
| ZA16        | -11.2 | -9.3           | -8.4 | -7.8           | -6.7 | -8.61         | 1.11 | 0.24 | -9.12                           | -8.11 |
| ZA17        | -10.7 | -9.4           | -8.8 | -7.8           | -6.9 | -8.66         | 1.07 | 0.23 | -9.14                           | -8.17 |
| ZA19        | -10.3 | -9.2           | -8.6 | -7.5           | -6.4 | -8.50         | 1.23 | 0.27 | -9.06                           | -7.94 |
| ZA20        | -10.2 | -8.7           | -7.7 | -7.2           | -6.5 | -8.07         | 1.13 | 0.25 | -8.58                           | -7.55 |
| ZA21        | -9.2  | -8.4           | -8.0 | -7.6           | -6.4 | -7.90         | 0.71 | 0.15 | -8.23                           | -7.58 |
| ZA22        | -11.0 | -9.2           | -8.6 | -7.9           | -7.2 | -8.67         | 0.94 | 0.20 | -9.09                           | -8.24 |
| ZA23        | -9.4  | -8.7           | -8.2 | -7.8           | -6.9 | -8.19         | 0.69 | 0.15 | -8.51                           | -7.88 |
| ZA24        | -10.2 | -9.0           | -8.6 | -7.7           | -7.3 | -8.43         | 0.87 | 0.19 | -8.83                           | -8.04 |
| ZA25        | -11.1 | -9.2           | -8.3 | -8.0           | -7.2 | -8.66         | 1.22 | 0.27 | -9.22                           | -8.11 |
| ZA26        | -10.8 | -9.3           | -8.6 | -7.6           | -7.2 | -8.59         | 1.04 | 0.23 | -9.06                           | -8.11 |
| ZB01        | -8.5  | -6.7           | -6.1 | -5.7           | -4.8 | -6.25         | 0.93 | 0.20 | -6.67                           | -5.82 |
| ZB02        | -9.4  | -7.6           | -7.1 | -6.5           | -5.4 | -7.03         | 0.97 | 0.21 | -7.47                           | -6.59 |
| ZB03        | -6.4  | -5.7           | -5.0 | -4.5           | -4.1 | -5.10         | 0.73 | 0.16 | -5.44                           | -4.77 |
| ZB04        | -6.3  | -5.5           | -5.0 | -4.6           | -3.7 | -5.01         | 0.78 | 0.17 | -5.37                           | -4.65 |
| ZB05        | -6.3  | -5.2           | -4.8 | -4.4           | -3.9 | -4.88         | 0.60 | 0.13 | -5.15                           | -4.60 |
| ZB06        | -6.3  | -5.4           | -5.1 | -5.0           | -3.9 | -5.21         | 0.62 | 0.13 | -5.50                           | -4.93 |
| ZB07        | -6.2  | -5.4           | -4.7 | -4.5           | -3.7 | -4.90         | 0.71 | 0.15 | -5.22                           | -4.57 |
| ZB08        | -10.3 | -8.2           | -7.5 | -7.0           | -5.8 | -7.71         | 1.18 | 0.26 | -8.25                           | -7.17 |
| ZB09        | -6.3  | -5.6           | -5.0 | -4.6           | -3.7 | -5.03         | 0.69 | 0.15 | -5.35                           | -4.72 |
| ZB10        | -10.1 | -8.4           | -7.8 | -6.6           | -5.8 | -7.73         | 1.30 | 0.28 | -8.32                           | -7.14 |
| ZB11        | -7.0  | -5.9           | -5.5 | -4.7           | -4.2 | -5.42         | 0.82 | 0.18 | -5.79                           | -5.05 |

| Compound ID | Min   | 25%<br>Percentile | Med  | 75%<br>Percentile | Max  | Average<br>Value | SD   | SEM  | 95% Confidence<br>Interval of Mean |       |
|-------------|-------|-------------------|------|-------------------|------|------------------|------|------|------------------------------------|-------|
|             |       |                   |      |                   |      |                  |      |      | Lower                              | Upper |
| ZB12        | -6.1  | -5.4              | -4.9 | -4.2              | -3.6 | -4.85            | 0.68 | 0.15 | -5.16                              | -4.54 |
| ZB13        | -6.4  | -5.6              | -5.1 | -4.4              | -3.6 | -4.98            | 0.81 | 0.18 | -5.35                              | -4.61 |
| ZB14        | -6.5  | -5.7              | -5.2 | -4.6              | -3.9 | -5.17            | 0.70 | 0.15 | -5.49                              | -4.85 |
| ZB15        | -6.9  | -5.7              | -5.2 | -5.0              | -3.4 | -5.15            | 0.82 | 0.18 | -5.52                              | -4.78 |
| ZB16        | -8.5  | -6.7              | -6.2 | -5.3              | -4.8 | -6.09            | 0.92 | 0.20 | -6.50                              | -5.67 |
| ZB17        | -7.6  | -5.9              | -5.4 | -4.8              | -4.2 | -5.46            | 0.89 | 0.19 | -5.87                              | -5.06 |
| ZB18        | -6.3  | -5.7              | -4.9 | -4.4              | -3.9 | -5.01            | 0.72 | 0.16 | -5.34                              | -4.68 |
| ZB19        | -6.2  | -5.3              | -4.9 | -4.5              | -3.5 | -4.90            | 0.73 | 0.16 | -5.23                              | -4.57 |
| ZB20        | -9.6  | -7.8              | -7.3 | -6.1              | -5.5 | -7.21            | 1.12 | 0.25 | -7.72                              | -6.70 |
| ZB21        | -10.3 | -8.3              | -7.9 | -7.0              | -6.1 | -7.82            | 1.07 | 0.23 | -8.31                              | -7.34 |
| ZB22        | -6.4  | -5.5              | -5.2 | -4.7              | -4.3 | -5.20            | 0.59 | 0.13 | -5.47                              | -4.93 |
| ZB23        | -6.7  | -6.0              | -5.5 | -4.9              | -3.9 | -5.48            | 0.74 | 0.16 | -5.81                              | -5.14 |
| ZB24        | -6.1  | -5.2              | -4.9 | -4.6              | -3.8 | -4.92            | 0.66 | 0.14 | -5.22                              | -4.62 |
| ZB25        | -9.9  | -8.6              | -7.3 | -6.5              | -5.7 | -7.48            | 1.22 | 0.27 | -8.04                              | -6.92 |
| ZB26        | -10.0 | -9.0              | -8.1 | -6.8              | -6.0 | -8.00            | 1.26 | 0.27 | -8.57                              | -7.42 |
| ZB27        | -13.3 | -8.5              | -7.8 | -6.8              | -6.4 | -8.04            | 1.56 | 0.34 | -8.75                              | -7.33 |
| ZB28        | -9.3  | -8.2              | -7.3 | -6.6              | -5.7 | -7.42            | 1.04 | 0.23 | -7.90                              | -6.95 |
| ZC01        | -9.2  | -8.1              | -7.5 | -6.4              | -5.7 | -7.28            | 1.01 | 0.22 | -7.74                              | -6.82 |
| ZC02        | -8.8  | -8.2              | -7.4 | -6.2              | -5.5 | -7.18            | 1.00 | 0.22 | -7.63                              | -6.73 |
| ZC03        | -9.3  | -8.2              | -7.1 | -6.4              | -5.8 | -7.23            | 0.93 | 0.20 | -7.65                              | -6.81 |
| ZC04.       | -9.2  | -7.9              | -7.4 | -6.6              | -6.0 | -7.37            | 0.90 | 0.20 | -7.78                              | -6.96 |
| ZC04        | -10.0 | -7.9              | -7.4 | -6.6              | -6.0 | -7.42            | 1.06 | 0.23 | -7.90                              | -6.94 |
| ZC05        | -10.6 | -8.3              | -7.7 | -6.4              | -6.0 | -7.60            | 1.22 | 0.27 | -8.16                              | -7.04 |
| ZC06        | -8.8  | -8.1              | -7.3 | -6.7              | -5.5 | -7.31            | 0.95 | 0.21 | -7.75                              | -6.88 |
| ZC07        | -10.0 | -8.5              | -7.5 | -6.8              | -5.7 | -7.68            | 1.20 | 0.26 | -8.22                              | -7.13 |
| ZC08        | -8.9  | -7.3              | -6.9 | -6.3              | -5.3 | -6.86            | 0.93 | 0.20 | -7.28                              | -6.43 |
| ZC09        | -8.4  | -7.5              | -7.2 | -6.4              | -5.3 | -6.98            | 0.86 | 0.19 | -7.37                              | -6.59 |
| ZC10        | -10.3 | -8.4              | -7.8 | -6.8              | -5.8 | -7.72            | 1.24 | 0.27 | -8.29                              | -7.16 |
| ZC11        | -9.5  | -8.1              | -7.6 | -7.0              | -5.6 | -7.55            | 0.97 | 0.21 | -7.99                              | -7.11 |
| ZC12        | -12.1 | -9.6              | -9.2 | -8.3              | -7.2 | -9.22            | 1.50 | 0.33 | -9.91                              | -8.54 |
| ZC13        | -10.2 | -8.2              | -7.6 | -6.6              | -5.8 | -7.62            | 1.29 | 0.28 | -8.21                              | -7.04 |

| Compound ID | Min   | 25%<br>Percentile | Med  | 75%<br>Percentile | Max  | Average<br>Value | SD   | SEM  | 95% Confidence<br>Interval of Mean |       |
|-------------|-------|-------------------|------|-------------------|------|------------------|------|------|------------------------------------|-------|
|             |       |                   |      |                   |      |                  |      |      | Lower                              | Upper |
| ZD01        | -8.1  | -6.7              | -6.3 | -5.8              | -5.0 | -6.39            | 0.77 | 0.17 | -6.74                              | -6.04 |
| ZD02        | -7.3  | -6.2              | -5.8 | -5.5              | -4.6 | -5.87            | 0.70 | 0.15 | -6.19                              | -5.55 |
| ZE01        | -9.9  | -8.2              | -7.2 | -6.7              | -5.3 | -7.51            | 1.22 | 0.27 | -8.07                              | -6.96 |
| ZE02        | -10.4 | -8.6              | -8.0 | -7.2              | -6.4 | -7.99            | 0.91 | 0.20 | -8.40                              | -7.57 |
| ZF01        | -4.4  | -3.9              | -3.5 | -3.4              | -3.0 | -3.61            | 0.34 | 0.07 | -3.76                              | -3.46 |
| ZF02        | -5.5  | -4.9              | -4.6 | -4.4              | -4.2 | -4.71            | 0.42 | 0.09 | -4.90                              | -4.52 |
| ZF03        | -5.0  | -4.5              | -4.3 | -4.0              | -3.4 | -4.25            | 0.41 | 0.09 | -4.43                              | -4.06 |
| ZF04        | -6.7  | -6.3              | -5.9 | -5.3              | -4.6 | -5.82            | 0.59 | 0.13 | -6.09                              | -5.55 |
| ZF05        | -5.9  | -5.2              | -5.1 | -4.6              | -4.3 | -5.05            | 0.46 | 0.10 | -5.26                              | -4.84 |
| ZF06        | -5.2  | -4.7              | -4.5 | -4.1              | -3.7 | -4.43            | 0.45 | 0.10 | -4.63                              | -4.22 |
| ZF07        | -4.7  | -4.3              | -4.0 | -3.8              | -3.3 | -4.01            | 0.34 | 0.07 | -4.16                              | -3.85 |
| ZF08        | -5.3  | -4.9              | -4.7 | -4.4              | -3.8 | -4.67            | 0.39 | 0.08 | -4.84                              | -4.49 |
| ZF09        | -8.0  | -6.9              | -6.6 | -6.1              | -5.0 | -6.47            | 0.71 | 0.16 | -6.80                              | -6.15 |
| ZF10        | -5.8  | -5.2              | -4.8 | -4.5              | -3.8 | -4.84            | 0.52 | 0.11 | -5.08                              | -4.60 |
| ZF11        | -5.3  | -5.0              | -4.5 | -4.3              | -3.9 | -4.62            | 0.39 | 0.09 | -4.80                              | -4.44 |
| ZF12        | -5.4  | -5.0              | -4.6 | -4.4              | -3.7 | -4.62            | 0.46 | 0.10 | -4.83                              | -4.41 |
| ZF13        | -5.3  | -4.9              | -4.6 | -4.2              | -4.0 | -4.58            | 0.40 | 0.09 | -4.76                              | -4.40 |
| ZF14        | -6.6  | -6.1              | -5.8 | -5.5              | -4.5 | -5.76            | 0.57 | 0.12 | -6.02                              | -5.50 |
| ZF15        | -5.4  | -4.7              | -4.3 | -4.3              | -3.9 | -4.50            | 0.39 | 0.08 | -4.67                              | -4.32 |
| ZF16        | -4.7  | -4.5              | -4.1 | -3.9              | -3.5 | -4.17            | 0.35 | 0.08 | -4.33                              | -4.01 |
| ZF17        | -5.7  | -5.1              | -4.7 | -4.5              | -4.0 | -4.82            | 0.43 | 0.09 | -5.02                              | -4.63 |
| ZF18        | -6.0  | -5.4              | -5.2 | -5.0              | -4.6 | -5.23            | 0.33 | 0.07 | -5.38                              | -5.08 |
| ZG01        | -7.5  | -6.6              | -6.2 | -5.8              | -5.1 | -6.25            | 0.65 | 0.14 | -6.55                              | -5.95 |
| ZG02        | -7.9  | -7.1              | -6.8 | -6.2              | -5.5 | -6.67            | 0.66 | 0.14 | -6.97                              | -6.37 |
| ZG03        | -8.0  | -7.2              | -6.6 | -5.8              | -5.3 | -6.51            | 0.79 | 0.17 | -6.87                              | -6.15 |
| ZG04        | -7.5  | -6.8              | -6.2 | -5.8              | -5.2 | -6.29            | 0.62 | 0.14 | -6.57                              | -6.00 |
| ZG05        | -7.6  | -6.5              | -6.1 | -5.7              | -5.0 | -6.18            | 0.75 | 0.16 | -6.52                              | -5.84 |
| ZG06        | -8.2  | -7.3              | -6.6 | -6.1              | -5.4 | -6.75            | 0.77 | 0.17 | -7.10                              | -6.40 |
| ZH01        | -5.7  | -5.3              | -5.2 | -4.7              | -4.4 | -5.07            | 0.37 | 0.08 | -5.24                              | -4.90 |
| ZH02        | -6.2  | -5.4              | -5.2 | -4.9              | -4.4 | -5.16            | 0.43 | 0.09 | -5.36                              | -4.97 |
| ZH03        | -5.4  | -5.0              | -4.7 | -4.4              | -3.9 | -4.65            | 0.38 | 0.08 | -4.82                              | -4.48 |

| Compound ID | Min  | 25%<br>Percentile | Med  | 75%<br>Percentile | Max  | Average<br>Value | SD   | SEM  | 95% Confidence<br>Interval of Mean |       |
|-------------|------|-------------------|------|-------------------|------|------------------|------|------|------------------------------------|-------|
|             |      |                   |      |                   |      |                  |      |      | Lower                              | Upper |
| ZH04        | -5.9 | -5.3              | -5.1 | -4.8              | -4.2 | -5.06            | 0.41 | 0.09 | -5.24                              | -4.87 |
| ZI01        | -6.8 | -5.9              | -5.5 | -4.9              | -4.2 | -5.43            | 0.74 | 0.16 | -5.76                              | -5.09 |
| ZI02        | -6.2 | -5.6              | -5.2 | -4.7              | -3.9 | -5.13            | 0.66 | 0.14 | -5.43                              | -4.83 |
| ZI03        | -6.9 | -6.1              | -5.4 | -5.0              | -4.5 | -5.54            | 0.68 | 0.15 | -5.85                              | -5.23 |
| ZI04        | -8.9 | -8.0              | -7.7 | -6.8              | -5.8 | -7.53            | 0.85 | 0.18 | -7.91                              | -7.14 |
| ZJ01        | -8.5 | -7.4              | -6.7 | -5.9              | -4.6 | -6.68            | 1.01 | 0.22 | -7.14                              | -6.22 |
| ZJ02        | -8.2 | -7.0              | -6.6 | -6.1              | -5.2 | -6.66            | 0.76 | 0.17 | -7.00                              | -6.31 |
| ZJ03        | -8.2 | -7.4              | -6.4 | -5.9              | -5.4 | -6.63            | 0.82 | 0.18 | -7.01                              | -6.26 |

Note: Ave: Average value; Max: Maximum; Med: Median value; Min: Minimum; SD: Standard deviation; SEM: Standard error of mean. Corresponding compound names refer to Supplementary Table S1 online.

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