

# Supporting Information

## Modulators of 14-3-3 Protein-Protein Interactions

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## 14-3-3 crystal structures (July 2017)

PDB ID	Name	Resolution	Isoform	Organism	Ligand	Ref.
1A37	14-3-3 $\zeta$ /C-RafpS259	3.60 Å	Zeta	Human	-	Liddington, RC et al. (1998) <sup>1</sup>
1A38	14-3-3 $\zeta$ /R18	3.35 Å	Zeta	Human	-	Liddington, RC et al. (1998) <sup>1</sup>
1A40	14-3-3 $\zeta$	2.80 Å	Zeta	Human	-	Liddington, RC et al. (1995) <sup>2</sup>
1QJA	14-3-3 $\zeta$ /MODE2	2.00 Å	Zeta	Human	-	Yaffe, MB et al. (1999) <sup>3</sup>
1QJB	14-3-3 $\zeta$ /MODE1	2.00 Å	Zeta	Human	-	Yaffe, MB et al. (1999) <sup>3</sup>
1B11	14-3-3 $\zeta$ /AANAT	2.60 Å	Zeta	Human	-	Dyda, F et al. (2001) <sup>4</sup>
1O9C	T14-3c	2.60 Å	Isoform c	Tobacco	Citrate	Oecking, C. et al. (2003) <sup>5</sup>
1O9D	T14-3c/PMA2pS955	2.30 Å	Isoform c	Tobacco	-	Oecking, C. et al. (2003) <sup>5</sup>
1O9E	T14-3c/FC-A	2.60 Å	Isoform c	Tobacco	Fusicoccin A	Oecking, C. et al. (2003) <sup>5</sup>
1O9F	T14-3c/PMA2pS955/FC-A	2.70 Å	Isoform c	Tobacco	Fusicoccin A	Oecking, C. et al. (2003) <sup>5</sup>
1YWT	14-3-3 $\sigma$ /MODE1	2.40 Å	Sigma	Human	-	Yaffe, MB. et al. (2005) <sup>6</sup>
1YZ5	14-3-3 $\sigma$	2.80 Å	Sigma	Human	-	Hermeking, H. et al. (2005) <sup>7</sup>
2BQ0	14-3-3 $\beta$	2.50 Å	Beta	Human	-	Doyle, DA. et al. (2006) <sup>8</sup>
2BR9	14-3-3 $\epsilon$ /ConsPep	1.75 Å	Epsilon	Human	-	Doyle, DA. et al. (2006) <sup>8</sup>
2BTP	14-3-3 $\tau$ /ConsPep	2.80 Å	Tau	Human	-	Doyle, DA. et al. (2006) <sup>8</sup>
2C23	14-3-3 $\beta$ /ExoS	2.65 Å	Beta	Human	-	Doyle, DA. et al. (2006) <sup>8</sup>
2C63	14-3-3 $\eta$ /ConsPep	2.15 Å	Eta	Human	-	Doyle, DA. et al. (2006) <sup>8</sup>
2C74	14-3-3 $\eta$ /ConsPep	2.70 Å	Eta	Human	-	Doyle, DA. et al. (2006) <sup>8</sup>
2B05	14-3-3 $\gamma$ /MODE1	2.55 Å	Gamma	Human	-	-
2C1J	14-3-3 $\zeta$ /H3pS10K9Ac	2.60 Å	Zeta	Human	-	Mahadevan, LC. et al. (2005) <sup>9</sup>
2C1N	14-3-3 $\zeta$ /H3pS10	2.00 Å	Zeta	Human	-	Mahadevan, LC. et al. (2005) <sup>9</sup>
2NP M	14-3-3/ConsPep	2.52 Å		Cryptosporidium parvum	-	Hui, R. et al. (2011) <sup>10</sup>

2O8P	14-3-3/ConsPep	1.82 Å		Cryptosporidium parvum	-	Hui, R. et al. (2011) <sup>10</sup>
3EFZ	14-3-3/ConsPep	2.08 Å		Cryptosporidium parvum	-	Hui, R. et al. (2011) <sup>10</sup>
2O98	T14-3c/PMA2_CT52	2.70 Å	Isoform c	Tobacco	Fusicoccin A	Oecking, C. et al. (2007) <sup>11</sup>
2O02	14-3-3 $\zeta$ /ExoS	1.50 Å	Zeta	Human/P. aeruginosa	-	Hallberg, B. et al. (2007) <sup>12</sup>
2V7D	14-3-3 $\zeta$ /IntegBpT758	2.50 Å	Zeta	Human	-	Fagerholm, SC. et al. (2008) <sup>13</sup>
3E6Y	T14-3c/PMA2_pT955/CN-A	2.50 Å	Isoform c	Tobacco	Cotylenin A	Ottmann, C. et al. (2009) <sup>14</sup>
3CU8	14-3-3 $\zeta$ /C-RafpS259	2.40 Å	Zeta	Human	-	Ottmann, C. et al. (2010) <sup>15</sup>
3LW1	14-3-3 $\sigma$ /p53pT387	1.28 Å	Sigma	Human	-	Ottmann, C. et al. (2010) <sup>15</sup>
3M50	T14-3e/PMA2_CT30/Epibestatin	2.60 Å	Isoform e	Nicotiana	Epibestatin	Ottmann, C. et al. (2010) <sup>15</sup>
3M51	T14-3e/PMA2_CT30/Pyrrolidine1	3.25 Å	Isoform e	Nicotiana	Pyrrolidone 1	Ottmann, C. et al. (2010) <sup>15</sup>
3IQJ	14-3-3 $\sigma$ /C-RafpS259 (10mer)	1.15 Å	Sigma	Human	-	Ottmann, C. et al. (2010) <sup>15</sup>
3IQU	14-3-3 $\sigma$ /C-RafpS259 (6mer)	1.05 Å	Sigma	Human	-	Ottmann, C. et al. (2010) <sup>15</sup>
3IQV	14-3-3 $\sigma$ /C-RafpS259 (6mer)/FC-A	1.20 Å	Sigma	Human	Fusicoccin A	Ottmann, C. et al. (2010) <sup>15</sup>
2WH0	14-3-3 $\zeta$ /PKCpS346pS368	2.25 Å	Zeta	Human	-	McDonald, NQ. et al. (2009) <sup>16</sup>
3MHR	14-3-3 $\sigma$ /YAPPs127	1.15 Å	Sigma	Human	-	Ottmann, C. et al. (2010) <sup>17</sup>
3NKX	14-3-3 $\zeta$ /C-RafpS259	2.40 Å	Zeta	Human	-	Ottmann, C. et al. (2010) <sup>18</sup>
3O8I	14-3-3 $\sigma$ /C-RafpS259/fragment	2.00 Å	Sigma	Human	fragment	Ottmann, C. et al. (2010) <sup>18</sup>
3AXY	GF-14c/Hd3a/OsFD1	2.40 Å	Isoform c	Rice	-	Shimamoto, K. et al. (2011) <sup>19</sup>
3RDH	14-3-3 $\zeta$ /FOBISIN101	2.40 Å	Zeta	Human	FOBISIN101	Fu, H. et al. (2011) <sup>20</sup>
3P1N	14-3-3 $\sigma$ /TASK3pS373	1.40 Å	Sigma	Human	-	Ottmann, C. et al. (2013) <sup>21</sup>
3P1O	14-3-3 $\sigma$ /TASK3pS373/FC-A	1.90 Å	Sigma	Human	Fusicoccin A	Ottmann, C. et al. (2013) <sup>21</sup>
3P1P	14-3-3 $\sigma$ C38N_N166H/TASK3pS373	1.90 Å	Sigma	Human	-	Ottmann, C. et al. (2013) <sup>21</sup>

3P1Q	14-3- 3 $\sigma$ C38N_N166H/TASK3pS 373/FC-A	1.70 Å	Sigma	Human	Fusicoccin A	Ottmann, C. et al. (2013) <sup>21</sup>
3P1R	14-3- 3 $\sigma$ C38V_N166H/TASK3pS 373	1.70 Å	Sigma	Human	-	Ottmann, C. et al. (2013) <sup>21</sup>
3P1S	14-3- 3 $\sigma$ C38V_N166H/TASK3pS 373/FC-A	1.65 Å	Sigma	Human	Fusicoccin A	Ottmann, C. et al. (2013) <sup>21</sup>
3UAL	14-3-3 $\epsilon$ /MLF1pS34	1.80 Å	Epsilon	Human	-	Ottmann, C. et al. (2012) <sup>22</sup>
3UB W	14-3- 3 $\epsilon$ /MLF1pS34/fragment	1.90 Å	Epsilon	Human	fragment	Ottmann, C. et al. (2012) <sup>22</sup>
4DNK	14-3-3 $\beta$	2.20 Å	Beta	Human	phosphate	-
3UZD	14-3-3 $\gamma$ /HDAC4pS350	1.86 Å	Gamma	Human	-	Min, J. et al. (2012) <sup>23</sup>
4E2E	14-3-3 $\gamma$ /HDAC4pS350	2.25 Å	Gamma	Human	-	-
3U9X	14-3-3 $\sigma$ /pyridoxalPD	1.80 Å	Sigma	Human	Pyridoxal-P- derivative	Ottmann, C. et al. (2012) <sup>24</sup>
4DX0	T14- 3e/PMA2_CT30/pyrazole	3.40 Å	Isoform e	Tobacco	Pyrazole	Ottmann, C. et al. (2012) <sup>25</sup>
4DAT	14-3-3 $\sigma$ /PADI6pS446	1.40 Å	Sigma	Human	-	Ottmann, C. et al. (2012) <sup>26</sup>
4DAU	14-3-3 $\sigma$ /PADI6pS10	2.20 Å	Sigma	Human	-	Ottmann, C. et al. (2012) <sup>26</sup>
3SPR	14-3- 3 $\sigma$ C38V_N166H/TASK3pS 373/FC-THF	1.99 Å	Sigma	Human	Fusicoccin THF	Ottmann, C. et al. (2013) <sup>21</sup>
3SM K	14-3- 3 $\sigma$ C38V_N166H/TASK3pS 373/CN-A	2.10 Å	Sigma	Human	Cotylenin A	Ottmann, C. et al. (2013) <sup>21</sup>
3SML	14-3- 3 $\sigma$ C38N_N166H/TASK3pS 373/FC-A aglycone	1.90 Å	Sigma	Human	Fusicoccin A aglycone	Ottmann, C. et al. (2013) <sup>21</sup>
3SM M	14-3- 3 $\sigma$ C38N_N166H/TASK3pS 373/FC-J aglycone	2.00 Å	Sigma	Human	Fusicoccin J aglycone	Ottmann, C. et al. (2013) <sup>21</sup>
3SM N	14-3- 3 $\sigma$ C38N_N166H/TASK3pS 373/FC THF	2.00 Å	Sigma	Human	Fusicoccin THF	Ottmann, C. et al. (2013) <sup>21</sup>
3SM O	14-3- 3 $\sigma$ C38V_N166H/TASK3pS 373/FC-J aglycone	1.80 Å	Sigma	Human	Fusicoccin J aglycone	Ottmann, C. et al. (2013) <sup>21</sup>
3UX0	14-3-3 $\sigma$ /TASK3pS373/FC- H	1.75 Å	Sigma	Human	Fusicoccin H	Ottmann, C. et al. (2013) <sup>21</sup>
4FR3	14-3-3 $\sigma$ /TASK3pS373/FC- H derivative	1.90 Å	Sigma	Human	16-O-Me- Fusicoccin H	Ottmann, C. et al. (2013) <sup>21</sup>
3SP5	14-3- 3 $\sigma$ /TASK3pS373/Cotyleno I	1.80 Å	Sigma	Human	Cotylenol	Ottmann, C. et al. (2013) <sup>21</sup>

4FJ3	14-3-3 $\zeta$ /C-RafpS233pS259	1.95 Å	Zeta	Human	-	Ottmann, C. et al. (2012) <sup>27</sup>
4GNT	14-3-3 $\beta$ /ChREBP	2.41 Å	Beta	Human	-	Uyeda, K. et al. (2012) <sup>28</sup>
3T0L	14-3-3 $\sigma$ /inhibitor	1.60 Å	Sigma	Human	Phosphonate B5	Ottmann, C. et al. (2013) <sup>29</sup>
3T0M	14-3-3 $\sigma$ /inhibitor	1.75 Å	Sigma	Human	Phosphonate B8	Ottmann, C. et al. (2013) <sup>29</sup>
4DH M	14-3-3 $\sigma$ /inhibitor	1.70 Å	Sigma	Human	Phosphonate B11	Ottmann, C. et al. (2013) <sup>29</sup>
4DHN	14-3-3 $\sigma$ /inhibitor	1.80 Å	Sigma	Human	Phosphonate B10	Ottmann, C. et al. (2013) <sup>29</sup>
4DHO	14-3-3 $\sigma$ /inhibitor	1.70 Å	Sigma	Human	Phosphonate B9	Ottmann, C. et al. (2013) <sup>29</sup>
4DHP	14-3-3 $\sigma$ /inhibitor	1.75 Å	Sigma	Human	Phosphonate B7	Ottmann, C. et al. (2013) <sup>29</sup>
4DHQ	14-3-3 $\sigma$ /inhibitor	1.75 Å	Sigma	Human	Phosphonate B6	Ottmann, C. et al. (2013) <sup>29</sup>
4DHR	14-3-3 $\sigma$ /inhibitor	1.40 Å	Sigma	Human	Phosphonate B4	Ottmann, C. et al. (2013) <sup>29</sup>
4DHS	14-3-3 $\sigma$ /inhibitor	1.74 Å	Sigma	Human	Phosphonate B3	Ottmann, C. et al. (2013) <sup>29</sup>
4DHT	14-3-3 $\sigma$ /inhibitor	1.80 Å	Sigma	Human	Phosphonate B2	Ottmann, C. et al. (2013) <sup>29</sup>
4DHU	14-3-3 $\sigma$ /inhibitor	1.67 Å	Sigma	Human	Phosphonate B1	Ottmann, C. et al. (2013) <sup>29</sup>
4HQ W	14-3-3 $\sigma$ /molecular tweezer	2.35 Å	Sigma	Human	CLR01	Ottmann, C. et al. (2013) <sup>30</sup>
4HRU	14-3-3 $\sigma$ /molecular tweezer	3.15 Å	Sigma	Human	CLR01	Ottmann, C. et al. (2013) <sup>30</sup>
4JC3	14-3-3 $\sigma$ /ERapT594	2.05 Å	Sigma	Human	-	Ottmann, C. et al. (2013) <sup>31</sup>
4JDD	14-3-3 $\sigma$ /ERapT594/FC-A	2.10 Å	Sigma	Human	Fusicoccin A	Ottmann, C. et al. (2013) <sup>31</sup>
4F7R	g14-3-3	3.20 Å	-	Giardia intestinalis	Phosphate	Lalle, M. et al. (2014) <sup>32</sup>
4BG6	14-3-3 $\zeta$ /Rnd3pS240	2.30 Å	Zeta	Human	-	Ridley, AJ. et al. (2013) <sup>33</sup>
4HKC	14-3-3 $\zeta$ / $\alpha$ 4pS1011	2.20 Å	Zeta	Human	-	Campbell, ID. et al. (2013) <sup>34</sup>
4IEA	14-3-3 $\sigma$ /C-RafpS629	1.70 Å	Sigma	Human	-	Ottmann, C. et al. (2013) <sup>35</sup>
4IHL	14-3-3 $\zeta$ /C-RafpS233pS259/CN-A	2.20 Å	Zeta	Human	-	Ottmann, C. et al. (2013) <sup>35</sup>
4J6S	14-3-3 $\gamma$ /THpS19	3.08 Å	Gamma	Human	-	Martinez, A. et al. (2014) <sup>36</sup>
4FL5	14-3-3 $\sigma$ /TaupS214	1.90 Å	Sigma	Human	-	Ottmann, C. et al. (2015) <sup>37</sup>
5BTV	14-3-3 $\sigma$ /TaupS324	1.90 Å	Sigma	Human	-	Ottmann, C. et al. (2015) <sup>37</sup>

4N7G	14-3-3 $\zeta$ /ExoS	2.25 Å	Zeta	Human	-	Ottmann, C. et al. (2014) <sup>38</sup>
4N7Y	14-3-3 $\zeta$ /ExoSDerPep	2.16 Å	Zeta	Human	$\beta$ RS8	Ottmann, C. et al. (2014) <sup>38</sup>
4N84	14-3-3 $\zeta$ /ExoSDerPep	2.50 Å	Zeta	Human	$\beta$ SS12	Ottmann, C. et al. (2014) <sup>38</sup>
4O46	14-3-3 $\gamma$ /NS1pS228	2.90 Å	Gamma	Human/Influenza		Min, J. et al. (2014) <sup>39</sup>
4WRQ	14-3-3 $\zeta$ /ChibbypS20	2.41 Å	Zeta	Human	-	Choy et al. (2015) <sup>40</sup>
4QLI	14-3-3 $\sigma$ /SnailpT177	1.45 Å	Sigma	Human	-	-
4ZDR	14-3-3 $\zeta$ /LKB1	2.90 Å	Zeta	Human	-	Zhu, Y. et al. (2015) <sup>41</sup>
4Y32	14-3-3 $\sigma$ /Tau109B	1.70 Å	Sigma	Human	Tau109B	Ottmann, C. et al. (2015) <sup>42</sup>
4Y3B	14-3-3 $\sigma$ /Tau201D	1.80 Å	Sigma	Human	Tau201D	Ottmann, C. et al. (2015) <sup>42</sup>
4Y5I	14-3-3 $\sigma$ /Tau126B	1.40 Å	Sigma	Human	Tau126B	Ottmann, C. et al. (2016) <sup>42</sup>
5D2D	14-3-3 $\zeta$ /CFTRpS753pS768	2.10 Å	Zeta	Human	-	Ottmann, C. et al. (2016) <sup>43</sup>
5D3E	14-3-3 $\gamma$ /CFTRpS768pS795	2.75 Å	Gamma	Human	-	Ottmann, C. et al. (2016) <sup>43</sup>
5D3F	14-3-3 $\zeta$ /CFTRpS753pS768/FC-A	2.74 Å	Zeta	Human	Fusicoccin A	Ottmann, C. et al. (2016) <sup>43</sup>
5F74	14-3-3 $\beta$ /ChREBP/AMP	2.35 Å	Beta	Human	Adenosine monophosphate	Uyeda, K. et al. (2012) <sup>44</sup>
5IQP	14-3-3 $\tau$	2.60 Å	Tau	Human	-	Gamblin, SJ. et al. (1995) <sup>45</sup>
AZQ0	g14-3-3/A8Ap	3.10 Å		Giardia intestinalis	-	Lalle, M. et al. (2015) <sup>46</sup>
5BY9	g14-3-3 polygly	4.00 Å		Giardia intestinalis	-	Lalle, M. et al. (2015) <sup>46</sup>
5EWZ	14-3-3 $\zeta$ /Gab2pS210pT391	1.95 Å	Zeta	Human	-	Ottmann, C. et al. (2016) <sup>47</sup>
5EXA	14-3-3 $\zeta$ /Gab2pT391/ISIR-005	1.70 Å	Zeta	Human	ISIR-005	Ottmann, C. et al. (2016) <sup>47</sup>
5J31	14-3-3 $\zeta$ /ExoS derivative	2.40 Å	Zeta	Human/P. aeruginosa	Peptide H	Grossmann, TN. et al. (2016) <sup>48</sup>
5LTW	14-3-3 $\sigma$ /HSPB6	4.50 Å	Sigma	Human	-	Strelkov, SV. et al. (2017) <sup>49</sup>
5LU1	14-3-3 $\sigma$ /HSPB6pS16 (8mer)	2.40 Å	Sigma	Human	-	Strelkov, SV. et al. (2017) <sup>49</sup>
5LU2	14-3-3 $\sigma$ /HSPB6pS16 (13mer)	2.50 Å	Sigma	Human	-	Strelkov, SV. et al. (2017) <sup>49</sup>
5MY9	14-3-3 $\sigma$ /LRRK2pS935	1.33 Å	Sigma	Human	-	Ottmann, C. et al. (2017) <sup>50</sup>
5MYC	14-3-3 $\sigma$ /LRRK2pS910	1.46 Å	Sigma	Human	-	Ottmann, C. et al. (2017) <sup>50</sup>

<b>5NAS</b>	<b>14-3-3<math>\zeta</math>/PI4KIII BpS294</b>	<b>2.08 Å</b>	<b>Zeta</b>	<b>Human</b>	<b>-</b>	<b>-</b>
<b>5WX N</b>	<b>14-3-3<math>\zeta</math>/LKB1pT336</b>	<b>2.93 Å</b>	<b>Zeta</b>	<b>Human</b>	<b>-</b>	<b>Wu, J. et al. (2017)<sup>51</sup></b>
<b>5JIT</b>	<b>14-3-3<math>\zeta</math>/Cdc25pS216 (38mer)/CLR01</b>	<b>2.38 Å</b>	<b>Zeta</b>	<b>Human</b>	<b>CLR01</b>	<b>-</b>
<b>5JIV</b>	<b>14-3-3<math>\zeta</math>/Cdc25pS216 (38mer)/CLR01</b>	<b>2.45 Å</b>	<b>Zeta</b>	<b>Human</b>	<b>CLR01</b>	<b>-</b>
<b>5JM4</b>	<b>14-3-3<math>\zeta</math>/ExoS-adamantyl</b>	<b>2.34 Å</b>	<b>Zeta</b>	<b>Human</b>	<b>ExoS-adamantyl</b>	<b>-</b>
<b>5N10</b>	<b>14-3-3<math>\zeta</math>/FGG-ER<math>\beta</math>/Q8</b>	<b>1.60 Å</b>	<b>Beta</b>	<b>Human</b>	<b>Cucubit[8]uril</b>	<b>Ottmann, C. et al. (2017)<sup>52</sup></b>
<b>5N75</b>	<b>14-3-3<math>\sigma</math>/TAZpS89</b>	<b>1.80 Å</b>	<b>Sigma</b>	<b>Human</b>	<b>-</b>	<b>Ottmann, C. et al. (2017)<sup>53</sup></b>
<b>5N5R</b>	<b>14-3-3<math>\sigma</math>/TAZpS89/NV1</b>	<b>1.80 Å</b>	<b>Sigma</b>	<b>Human</b>	<b>Fragment NV1</b>	<b>Ottmann, C. et al. (2017)<sup>53</sup></b>
<b>5N5T</b>	<b>14-3-3<math>\sigma</math>/TAZpS89/NV2</b>	<b>1.80 Å</b>	<b>Sigma</b>	<b>Human</b>	<b>Fragment NV2</b>	<b>Ottmann, C. et al. (2017)<sup>53</sup></b>
<b>5N5 W</b>	<b>14-3-3<math>\sigma</math>/TAZpS89/NV2</b>	<b>1.37 Å</b>	<b>Sigma</b>	<b>Human</b>	<b>Fragment NV3</b>	<b>Ottmann, C. et al. (2017)<sup>53</sup></b>

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