

# Supporting Information: Mining Chromatographic Enantioseparation Data using Matched Molecular Pair Analysis

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## 1. SMILES for All the Compounds in Set 1

COMPOUND\_NAME SMILES

71 O(c1c(OCC=C)cccc1)C[C@H](CNC(C)C)O  
73 c12c(OC[C@H](CNC(C)C)O)cccc1cccc2  
74 c12c([nH]cc2)cccc1OC[C@H](CNC(C)C)O  
105 n1c(Oc2ccc(F)cc2)cccc1[C@@H](O)C  
106 n1c(Oc2ccc(Cl)cc2)cccc1[C@@H](O)C  
107 n1c(Oc2ccc(Br)cc2)cccc1[C@@H](O)C  
108 n1c(Oc2ccc(I)cc2)cccc1[C@@H](O)C  
110 n1c(Oc2ccc(cc2)OC)cccc1[C@@H](O)C  
111 n1c(Oc2ccc(C#C)cc2)cccc1[C@@H](O)C  
112 n1c(Oc2ccc(C=C)cc2)cccc1[C@@H](O)C  
113 n1c(Oc2cccc2)cccc1[C@@H](O)C  
114 n1c(Oc2cccc2)cccc1[C@H](OC(=O)C)C  
115 n1c(Oc2ccc(F)cc2)cccc1[C@@H](OC(=O)C)C  
116 n1c(Oc2ccc(Cl)cc2)cccc1[C@@H](OC(=O)C)C  
117 n1c(Oc2ccc(Br)cc2)cccc1[C@@H](OC(=O)C)C  
118 n1c(Oc2ccc(I)cc2)cccc1[C@@H](OC(=O)C)C  
120 n1c(Oc2ccc(cc2)OC)cccc1[C@@H](OC(=O)C)C  
121 n1c(Oc2ccc(C#C)cc2)cccc1[C@@H](OC(=O)C)C  
122 n1c(Oc2ccc(C=C)cc2)cccc1[C@@H](OC(=O)C)C  
159 C1[C@@H](c2cccc2)CCCC1=O  
161 C1(OCC[C@@H](C1)c1cccc1)=O  
163 O1[C@@H](c2cccc2)COCC1  
164 O1C[C@H](c2cccc2)CCC1  
165 C1(O[C@H](c2cccc2)CCO1)=O  
1390 N1(C([C@](c2cccc2)(CC)C(NC1=O)=O)=O)C  
1782 C1([C@@H](c2cccc2)CCCC1)=O  
2077 C([C@H](Oc1cccc1)C)(=O)O  
2089 C(N[C@H](C(=O)O)c1cccc1)(=O)OCc1cccc1  
2091 C(N[C@H](C(=O)O)C(C)C)(=O)OCc1cccc1  
3751 C(O[C@H](c1cccc1)C)(=O)c1cccc1  
4564 C(N[C@H](C(=O)OCC)C)(=O)OCc1cccc1  
4631 C(N[C@H](C(=O)OCC)CC)(=O)OCc1cccc1  
4632 C(N[C@H](C(OCc1cccc1)=O)CC)(=O)OCc1cccc1  
4647 C(N[C@H](C(=O)OCC)CO)(=O)OCc1cccc1

4648 C(N[C@@H](C(OCc1ccccc1)=O)CO)(=O)OCc1ccccc1  
4674 C(N[C@H](C(=O)OCC)CC)(=O)OCc1ccccc1  
4676 C(N[C@H](C(=O)OCC)C(C)C)(=O)OCc1ccccc1  
4678 C(N[C@H](C(=O)OCC)CCC)(=O)OCc1ccccc1  
4682 C(N[C@H](C(=O)OCC)CCCC)(=O)OCc1ccccc1  
5312 O1[C@](c2c3c(ccc(c3)C)cc(c2)C)(c2c(cccc2)C1=O)C  
7444 C([C@@H](c1ccccc1)N)(=O)O  
7928 C(c1ccccc1)[C@H](N)C  
7979 c1([C@@H](N)CO)ccccc1  
8937 N1=C(c2c(ccc(c2)Cl)NC([C@H]1C)=O)c1ccccc1  
8940 N1=C(c2c(ccc(c2)Cl)NC([C@H]1C(C)C)=O)c1ccccc1  
8944 N1=C(c2c(ccc(c2)Cl)NC(C1Cc1ccccc1)=O)c1ccccc1  
8949 N1=C(c2c(ccc(c2)Cl)N(C([C@H]1C)=O)C)c1ccccc1  
8950 N1=C(c2c(ccc(c2)Cl)N(C([C@H]1C(C)C)=O)C)c1ccccc1  
8964 N1=C(c2c(ccc(c2)Cl)NC([C@H]1OC(=O)c1ccccc1)=O)c1ccccc1  
9103 C([C@H](Nc1cc2ccccc2cc1)C)(=O)OCC  
9104 C([C@H](Nc1cc2ccccc2cc1)CC)(=O)OCC  
9105 C([C@H](Nc1cc2ccccc2cc1)CCC)(=O)OCC  
9115 C([C@H](Nc1cc2ccccc2cc1)CCCC)(=O)OCC  
9116 C([C@H](Nc1cc2ccccc2cc1)CCCCC)(=O)OCC  
9117 C([C@H](Nc1cc2ccccc2cc1)CCCCCC)(=O)OCC  
10688 C(#C[C@H](\ C=C \ c1ccccc1)O)c1ccccc1  
11565 [nH]1c2c(c(OC[C@H](CNC(C)C)O)ccc2)c2c1ccccc2  
12253 C([C@H](Oc1ccc(cc1)Cl)C)(=O)OC  
12258 C([C@H](Oc1ccccc1)C)(=O)OC  
12355 O1[C@](c2c(c(cc3c2ccccc3)C)C)(c2c(cccc2)C1=O)C  
12553 C([C@@H](Oc1c(C)ccccc1)C)(=O)O  
12554 O(c1c(C)ccccc1)[C@@H](C(=O)OC)C  
12555 O(c1c(C)ccccc1)[C@H](C(=O)OCC)C  
12558 C([C@@H](Oc1cc(C)ccccc1)C)(=O)O  
12562 C([C@@H](Oc1ccc(C)cc1)C)(=O)O  
12564 O(c1c(Cl)ccccc1)[C@@H](C(=O)OC)C  
14161 N=1[C@@H](C(N(C)c2c(C1c1ccccc1)cc(cc2)Cl)=O)OC(=O)c1ccccc1  
16609 O(c1c(cc(cc1)Cl)Cl)[C@H](C(=O)OC)C  
18625 N1=C(c2c(ccc(c2)Cl)NC([C@H]1OC(N(C)C)=O)=O)c1ccccc1  
18630 N=1[C@H](C(N(C)c2c(C1c1ccccc1)cc(cc2)Cl)=O)OC(N(C)C)=O  
20048 C=1([C@@H](C(C(=O)OC)=C(NC1C)C)c1c(c(Cl)ccc1)Cl)C(=O)OCC  
22008 O1C(=O)CCC[C@@H]1c1ccccc1  
22016 N(C[C@H](COc1ccccc1)O)C(C)C  
22017 C(O[C@H](CNC(C)C)COc1ccccc1)(=O)C  
22256 c12c(c(O)ccc1OC[C@H](CNC(C)C)O)ccc2  
24136 C(C[C@@H](\ C=C \ c1ccccc1)O)(=O)c1ccccc1  
24647 C(N[C@H](C(=O)OCC)CC)(=O)OCc1ccccc1

24648 C(N[C@H](C(=O)OC)CCC)(=O)OCc1ccccc1  
24708 C(N[C@H](CC(=O)OC)c1ccccc1)(=O)OCc1ccccc1  
24709 C(N[C@H](CC(=O)OC)c1occcc1)(=O)OCc1ccccc1  
24710 C(N[C@H](CC(=O)OC)c1sccc1)(=O)OCc1ccccc1  
25319 N=1[C@H](C(N(C)c2c(C1c1ccccc1)cc(cc2)Cl)=O)OC(=O)NC  
25320 N1=C(c2c(ccc(c2)Cl)NC([C@@H]1OC(=O)NC)=O)c1ccccc1  
25321 N=1[C@@H](C(N(C)c2c(C1c1ccccc1)cc(cc2)Cl)=O)OC(N(CO)C)=O  
25322 N1=C(c2c(ccc(c2)Cl)NC([C@H]1OC(N(CO)C)=O)=O)c1ccccc1  
25323 N=1[C@H](C(N(C)c2c(C1c1ccccc1)cc(cc2)Cl)=O)OC(=O)N  
25324 N1=C(c2c(ccc(c2)Cl)NC([C@@H]1OC(=O)N)=O)c1ccccc1  
25325 N=1[C@H](C(N(C)c2c(C1c1ccccc1)cc(cc2)Cl)=O)OC(NCO)=O  
25326 N1=C(c2c(ccc(c2)Cl)NC([C@@H]1OC(NCO)=O)=O)c1ccccc1  
25327 N=1[C@H](C(N(C)c2c(C1c1ccccc1)cc(cc2)Cl)=O)OC(N(CO)CO)=O  
25328 N1=C(c2c(ccc(c2)Cl)NC([C@@H]1OC(N(CO)CO)=O)=O)c1ccccc1  
26214 c1(oc2ccccc2c1)[C@H](n1cncc1)c1ccc(cc1)Cl  
26955 c1([S@](Cc2ccccc2)=O)c(C)cccc1  
27472 N(C[C@@H](COc1ccc(cc1)O)O)C(C)C  
27987 C([C@H](c1ccccc1)O)(=O)N  
29317 C([C@H](Oc1ccccc1)CC)(=O)O  
31206 c1([C@H](c2ccccc2)O)c(OC)cccc1  
31208 c1([C@H](c2ccccc2)O)c(F)cccc1  
31209 c1([C@H](c2ccccc2)O)c(C)cccc1  
31515 C1(Oc2ccccc2C1)(C(=O)O)CC  
31518 O1[C@](C(=O)OC)(Cc2ccccc12)CC  
31521 O1[C@](C(=O)N)(Cc2ccccc12)CC  
37727 C([C@@H](Cc1cnccc1)N)(=O)O  
40459 C([C@H](Oc1ccc(cc1)CC)C)(=O)OC  
40461 c1(O[C@@H](C(=O)OC)C)c(c(C)ccc1)C  
40462 c1(O[C@@H](C(=O)O)C)c(c(C)ccc1)C  
40464 O(c1c(cc(cc1)C)C)[C@@H](C(=O)OC)C  
40466 O(c1c(cc(cc1)C)C)[C@@H](C(=O)O)C  
40472 C([C@H](Oc1cc(C)c(cc1)C)C)(=O)O  
41899 C1(=C(NC(=O)N[C@@H]1c1ccccc1)C)C(=O)OCC  
41900 C1(=C(NC(=O)N[C@@H]1c1ccccc1)C)C(=O)OCC  
41905 C1(=C(N(C(=O)N[C@@H]1c1ccccc1)C)C)C(=O)OCC  
41906 C1(=C(N(C(=O)N[C@@H]1c1ccccc1)C)C)C(=O)OCC  
41911 C1(=C(NC(=O)N([C@@H]1c1ccccc1)C)C)C(=O)OCC  
41912 C1(=C(NC(=O)N([C@@H]1c1ccccc1)C)C)C(=O)OCC  
41917 C1(=C(N(C(=O)N([C@@H]1c1ccccc1)C)C)C)C(=O)OCC  
41918 C1(=C(N(C(=O)N([C@@H]1c1ccccc1)C)C)C)C(=O)OCC  
41923 N1(C(NC(C)=C([C@H]1c1ccccc1)C(=O)OCC)=O)C=O  
41924 N1(C(NC(C)=C([C@H]1c1ccccc1)C(=O)OCC)=O)C=O  
41929 N1(C(N(C(C)=C([C@H]1c1ccccc1)C(=O)OCC)C)=O)C=O

41930 N1(C(N(C(C)=C([C@H]1c1cccc1)C(=O)OCC)C)=O)C=O  
41935 N1(C(NC(C)=C(C1c1cccc1)C(=O)OCC)=O)C(=O)C  
41941 C1(=C(NC(=S)N[C@@H]1c1cccc1)C)C(=O)OCC  
41942 C1(=C(NC(=S)N[C@@H]1c1cccc1)C)C(=O)OCC  
41947 C1(=C(N(C(=S)N[C@@H]1c1cccc1)C)C)C(=O)OCC  
41948 C1(=C(N(C(=S)N[C@@H]1c1cccc1)C)C)C(=O)OCC  
41953 N1(C(NC(C)=C([C@H]1c1cccc1)C(=O)OCC)=S)C(=O)C  
41959 C1(=C(NC(=O)N[C@@H]1c1cccc1)C)C(=O)OC  
42013 C1(=C(NC(=O)N[C@@H]1c1cccc1)C)C(=O)N  
42339 C(N[C@H](C(=O)O)C)(=O)c1cccc1  
42341 C(N[C@@H](C(=O)O)CC(C)C)(=O)c1cccc1  
42347 N(C(=O)c1cccc1)[C@@H](C(=O)O)C(C)C  
42444 C([C@H](c1cccc1)O)(=O)O  
43515 C(N1[C@@H](CCC1)C)(c1c2c(cccc2)ccc1)=O  
43517 C(N1C[C@@H](C)CC1)(c1c2c(cccc2)ccc1)=O  
43521 C(N1[C@H](C)CCCC1)(c1c2c(cccc2)ccc1)=O  
43522 C(N1[C@H](CC)CCCC1)(c1c2c(cccc2)ccc1)=O  
43524 C(N1C[C@H](C)CCC1)(c1c2c(cccc2)ccc1)=O  
44997 n1c[nH]c(c1)C[C@@H](C(=O)O)N  
48059 C(N[C@H](C(=O)O)C)(=O)OCc1cccc1  
48071 C(N[C@H](C(=O)O)C(C)C)(=O)OCc1cccc1  
48090 C(N[C@@H](C(=O)O)[C@H](CC)C)(=O)OCc1cccc1  
48095 C(N[C@@H](C(=O)O)[C@H](CC)C)(=O)OCc1cccc1  
48509 C(=O)(c1cccc1)[C@@H](N)C  
48885 C([C@H](c1cccc1)O)(=O)OC  
49043 N1(C([C@@](C2=CCCC2)(C)C(NC1=O)=O)=O)C  
49045 N1(C([C@](c2cccc2)(CC)C(NC1=O)=O)=O)C  
52324 c12c(OC[C@@H](O)CNCCC)cccc1cccc2  
52326 c12c(OC[C@@H](O)CNCCC)cccc1cccc2  
57323 C([C@H](C(=O)C)CCC)(N1CCN(c2nccn2)CC1)=O  
57325 C([C@H](C(=O)C)CCCC)(N1CCN(c2nccn2)CC1)=O  
57327 C([C@H](C(=O)C)CCCC)(N1CCN(c2nccn2)CC1)=O  
57329 C([C@H](C(=O)C)CCCC)(N1CCN(c2nccn2)CC1)=O  
57331 C([C@H](C(=O)C)CCCC)(N1CCN(c2nccn2)CC1)=O  
57775 N(=C(/c1cccc1)c1cccc1)\[C@H](C(=O)OCC)C  
57776 N(=C(/c1cccc1)c1cccc1)\[C@H](C(=O)OCC)C(C)C  
57787 N(=C(/c1cccc1)c1cccc1)\[C@H](C(=O)NCCCC)CC(C)C  
57788 N(\[C@H](C(N(CC)CC)=O)CC(C)C)=C(\c1cccc1)c1cccc1  
57790 N(=C(/c1cccc1)c1cccc1)\[C@H](C(=O)NCCCC)C(C)C  
57791 N(\[C@H](C(N(CC)CC)=O)C(C)C)=C(/c1cccc1)c1cccc1  
57792 N(=C(/c1cccc1)c1cccc1)\[C@H](C(=O)OC)C  
57793 N(=C(/c1cccc1)c1cccc1)\[C@H](C(=O)OC)C(C)C  
58834 C(=C\c1cccc1)\[C@H](c1cccc1)O

58927 C(N[C@H](C(=O)O)Cc1cccc1)(OC(C)(C)C)=O  
58930 C(N[C@H](C(=O)O)C(C)C(=O)OCc1cccc1  
58931 C(N[C@H](C(=O)O)CC(C)C(=O)OCc1cccc1  
58933 C(N[C@H](C(=O)O)c1cccc1)(=O)OCc1cccc1  
59588 C([C@@H](Oc1ccc(CC)cc1)C)(=O)OCC  
59590 c1(O[C@H](C(=O)OCC)C)c(c(C)ccc1)C  
59591 O(c1c(cc(cc1)C)C)[C@H](C(=O)OCC)C  
59602 C([C@@H](Oc1ccc(cc1)Cl)C)(=O)OCC  
59618 C([C@@H](Oc1cccc1)C)(=O)OCC  
61170 C(N[C@@H](C(=O)NC)Cc1cccc1)(OC(C)(C)C)=O  
61172 C([C@@H](NC(OC(C)(C)C)=O)Cc1cccc1)(N(C)C)=O  
61174 C(N[C@H](C(=O)NCC)Cc1cccc1)(OC(C)(C)C)=O  
61176 C([C@@H](NC(OC(C)(C)C)=O)Cc1cccc1)(N(CC)CC)=O  
61178 C(N[C@H](C(NC(C)C)=O)Cc1cccc1)(OC(C)(C)C)=O  
61180 C([C@@H](NC(OC(C)(C)C)=O)Cc1cccc1)(N(C(C)C)C(C)C)=O  
64228 N1=C(c2c(cc3c(c2)OCO3)C[C@H](N1)C)c1ccc(N)cc1  
64252 N=1N(C(=O)NC)[C@@H](Cc2c(C1c1ccc(N)cc1)cc1c(OCO1)c2)C  
66799 C([C@H](Cc1cccc1)O)(=O)O  
67293 C(O[C@H](c1cccc1)CO)(=O)c1cccc1  
67346 c1([C@@](c2cccc2)(O)C)ccc(cc1)Br  
67546 C(C(=O)OC)[C@@H](c1cccc1)O  
69233 C([C@@H](Cc1cc(O)c(cc1)O)N)(=O)O  
69328 c1(c[nH]c2c1cccc2)C[C@@H](C(=O)O)N  
70299 c12cc(OC[C@@H](O)CNCCC)ccc1cccc2  
70302 c12cc(OC[C@@H](O)CNCCC)ccc1cccc2  
70311 O(C[C@@H](O)CNCCC)c1cccc1  
70314 O(C[C@@H](O)CNCCC)c1cccc1  
70318 N(C(C)(C)C)C[C@@H](COc1cccc1)O  
71392 C=12[C@H](NC(NC1CCCC2=O)=S)c1c(Cl)cccc1  
71395 C=12[C@H](NC(NC1CCCC2=O)=S)c1c(Br)cccc1  
71398 C=12[C@H](NC(NC1CCCC2=O)=S)c1c(C)cccc1  
71404 C=12[C@H](NC(NC1CCCC2=O)=S)c1c(OCC)cccc1  
72053 N(C[C@H](COc1ccc(C=O)cc1)O)C(C)C  
72075 O(c1c(CCC)cccc1)C[C@@H](CNC(C)C)O  
72081 c1(c(OC[C@@H](CNC(C)C)O)cccc1)C=O  
76324 C1([C@@H](Cc2cccc2)CCCC1)=O  
78051 C(C(C)(C)C)(O[C@H](CCc1cccc1)C)=O  
78057 C(C(C)(C)C)(O[C@H](\ C=C \ c1cccc1)C)=O  
78058 C(O[C@H](\ C=C \ c1ccc(cc1)C)C)(=O)C  
78059 [N+](c1ccc(\ C=C \ [C@@H](OC(=O)C)C)cc1)([O-])=O  
78063 C(N[C@H](C(=O)O)CCC(=O)OCc1cccc1  
79426 C([C@H](c1cccc1)O)(=O)O  
80260 c1(oc2cccc2c1)[C@@H](n1cncc1)c1cccc1

80281 N1(C(OC(C)(C)C)=O)[C@H](C(=O)OC1)Cc1ccccc1  
81748 c1(c([S@](Cc2ccccc2)=O)cccc1)C(=O)N  
83141 n12c(=NC(CC)=C([C@H]1c1c(C)cccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccccc1  
83144 n12c(=NC(CC)=C([C@H]1c1cc(C)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccccc1  
83146 n12c(=NC(CC)=C([C@H]1c1cc(C)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(cc1)Cl  
83149 n12c(=NC(CC)=C([C@H]1c1cc(OC)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccccc1  
83150 n12c(=NC(CC)=C([C@H]1c1cc(OC)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(cc1)Cl  
83647 C([C@@H](c1ccccc1)N)(=O)O  
83711 N1(C([C@](c2ccccc2)(CC)C(NC1=S)=O)=O)C  
84685 c1(oc2ccccc2c1)[C@@H](n1nnnc1)c1ccccc1  
84689 c1(oc2ccccc2c1)[C@@H](n1nnnc1)c1ccc(cc1)Cl  
85512 C([C@@H](Cc1ccccc1)N)(=O)O  
85528 C([C@@H](Cc1ccc(O)cc1)N)(=O)O  
85608 C([C@@H](Cc1ccc(cc1)F)N)(=O)O  
85624 C([C@@H](Cc1ccc(cc1)Cl)N)(=O)O  
85640 C([C@H](Cc1ccc(cc1)Br)N)(=O)O  
86406 C([C@@](c1ccccc1)(O)C)(=O)O  
88157 n12c(=NC(C)=C([C@H]2c2ccccc2)C(=O)OC)sc(\ c1=O)=C \ c1ccccc1  
88158 n12c(=NC(C)=C([C@H]2c2ccccc2)C(=O)OC)sc(\ c1=O)=C \ c1ccc(C)cc1  
88159 n12c(=NC(C)=C([C@H]2c2ccccc2)C(=O)OC)sc(\ c1=O)=C \ c1ccc(OC)cc1  
88160 n12c(=NC(C)=C([C@H]2c2ccccc2)C(=O)OC)sc(\ c1=O)=C \ c1ccc(cc1)Cl  
88162 n12c(=NC(C)=C([C@H]1c1c([N+][O-])=O)cccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(C)cc1  
88164 n12c(=NC(C)=C([C@H]1c1c([N+][O-])=O)cccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(OC)cc1  
88167 n12c(=NC(C)=C([C@H]1c1cc([N+][O-])=O)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccccc1  
88168 n12c(=NC(C)=C([C@H]1c1cc([N+][O-])=O)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(C)cc1  
88169 n12c(=NC(C)=C([C@H]1c1cc([N+][O-])=O)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(OC)cc1  
88170 n12c(=NC(C)=C([C@H]1c1cc([N+][O-])=O)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(cc1)Cl  
88179 n12c(=NC(C)=C([C@H]1c1cc(Cl)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccccc1  
88180 n12c(=NC(C)=C([C@H]1c1cc(Cl)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(C)cc1  
88181 n12c(=NC(C)=C([C@H]1c1cc(Cl)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(OC)cc1  
88182 n12c(=NC(C)=C([C@H]1c1cc(Cl)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(cc1)Cl  
88183 n12c(=NC(C)=C(C1c1c(OC)cccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccccc1  
88184 n12c(=NC(C)=C(C1c1c(OC)cccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(C)cc1  
88188 n12c(=NC(C)=C([C@H]1c1cc(OC)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccccc1  
88192 n12c(=NC(C)=C([C@H]1c1cc(OC)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(cc1)Cl  
88193 n12c(=NC(C)=C([C@H]1c1c(C)cccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccccc1  
88194 n12c(=NC(C)=C([C@H]1c1c(C)cccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(C)cc1  
88197 n12c(=NC(C)=C([C@H]1c1cc(C)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccccc1  
88198 n12c(=NC(C)=C([C@H]1c1cc(C)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(C)cc1  
88199 n12c(=NC(C)=C([C@H]1c1cc(C)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(OC)cc1  
88200 n12c(=NC(C)=C([C@H]1c1cc(C)ccc1)C(=O)OC)sc(\ c2=O)=C \ c1ccc(cc1)Cl  
88863 C([S@](=O)c1ccccc1)C(=O)O  
89680 C1(N(c2ccccc2[C@@]1(c1ccccc1)C)C)=O

90245 C(N[C@H](C(=O)OC)CCC)(=O)OCc1cccc1  
92149 c1(c(cc(cc1)Cl)Cl)[C@H](Cn1cncc1)OCC=C  
93217 c12n(\ C=C3 \ C[C@@H]3CO)cnc1c(Cl)nc(n2)N  
93218 c12n(\ C=C3 \ C[C@@H]3CO)cnc1c(N)nc(n2)N  
93220 c12n(\ C=C3 \ C[C@H]3CO)cnc1c(OC)nc(n2)N  
95834 C([C@H](Cc1cccc1)N)(=O)OC  
95836 C([C@H](Cc1ccc(Cl)cc1)N)(=O)OC  
95838 C([C@H](Cc1ccc(Cl)cc1)N)(=O)OCC  
95840 C([C@@H](Cc1ccc(cc1)O)N)(=O)OC  
96670 C=1([C@@H](C(C(=O)OC)=C(NC1C)C)c1c(c(Cl)ccc1)Cl)C(OCOC(=O)CCC)=O  
97616 C([S@](=O)c1cccc1)C(=O)C  
97706 C([S@](=O)c1cccc1)C(=O)OCC  
98605 C([C@@H](c1cccc1)N)(=O)N  
98697 C([C@@H](Cc1c(cc(cc1)O)C)N)(=O)O  
99891 C(N[C@H](C(=O)O)C)(c1ccc(Br)cc1)=O  
99893 C(N[C@H](C(=O)O)C)(c1cc(Cl)ccc1)=O  
99894 C(N[C@H](C(=O)O)C)(c1ccc(Cl)cc1)=O  
99896 C(N[C@H](C(=O)O)C)(c1ccc(F)cc1)=O  
99902 N(C(c1ccc(Br)cc1)=O)[C@@H](C(=O)O)C(C)C  
99904 N(C(c1cc(Cl)ccc1)=O)[C@@H](C(=O)O)C(C)C  
99919 C(N[C@@H](C(=O)O)CC(C)C)(c1ccc(cc1)Br)=O  
100088 C(N[C@H](C(=O)O)CC)(c1cc(Cl)ccc1)=O  
101714 C1([C@](c2cccc2)(COC)CCCC1)=O  
104139 C([C@@H](C[N+]([O-])=O)c1cccc1)(C(=O)OCC)C(=O)OCC  
104143 C([C@H](c1sccc1)C[N+]([O-])=O)(C(=O)OCC)C(=O)OCC  
104857 c1([C@H](C(=O)O)N)c(C)cccc1  
104868 C([C@@H](c1c(C)cccc1)N)(=O)N  
105119 c1([C@H](c2cccc2)O)ccc(OC)cc1  
105466 c1([C@H](NC(=O)OCc2cccc2)C(=O)O)sccc1  
105468 c1([C@H](NC(=O)OCc2cccc2)C(=O)O)occc1  
105755 C([C@@H](Cc1cccc1)N)(=O)OCC  
106221 N1(C(N[C@](C1=O)(c1cccc1)CC)=O)C  
106386 [N+](c1ccc(NC([C@H](NC(=O)C)Cc2cccc2)=O)cc1)([O-])=O  
106389 [N+](c1ccc(OC([C@H](NC(=O)C)Cc2cccc2)=O)cc1)([O-])=O  
106392 C([C@H](NC(=O)C)Cc1cccc1)(Oc1cc2cccc2cc1)=O  
106437 C(N[C@@H](C(=O)OC)CO)(=O)OCc1cccc1  
106615 C([C@@H](Cc1ccc(cc1)O)N)(=O)OCC  
106617 C([C@H](Cc1ccc(cc1)O)N)(=O)OCCC  
106619 C([C@@H](Cc1ccc(cc1)O)N)(=O)OCCCC  
106631 C([C@@H](Cc1ccc(Cl)cc1)N)(=O)OCCC  
106633 C([C@@H](Cc1ccc(Cl)cc1)N)(=O)OCCCC  
107356 N1(N=C(c2ccc(cc2)O)C[C@H]1c1c(OC)cccc1)C(=O)C  
107364 N1(N=C(c2ccc(cc2)O)C[C@H]1c1c(OC)cccc1)C(=O)C

107369 N1(N=C(c2c(cc(cc2)O)O)C[C@H]1c1c(OC)cccc1)C(=O)C  
107377 N1(N=C(c2c(cc(cc2)O)O)C[C@H]1c1c(OC)cccc1)C(=O)C  
107382 N1(N=C(c2ccc(cc2)O)C[C@H]1c1ccc(OC)cc1)C(=O)C  
107390 N1(N=C(c2ccc(cc2)O)C[C@H]1c1ccc(OC)cc1)C(=O)C  
107394 N1(N=C(c2c(cc(cc2)O)O)C[C@H]1c1ccc(cc1)OC)C(=O)C  
107406 N1(N=C(c2ccc(cc2)O)C[C@H]1c1c(cc(cc1)OC)OC)C(=O)C  
107418 N1(N=C(c2c(cc(cc2)O)O)C[C@H]1c1c(cc(cc1)OC)OC)C(=O)C  
107426 N1(N=C(c2c(cc(cc2)O)O)C[C@H]1c1c(cc(cc1)OC)OC)C(=O)C  
107430 N1(N=C(c2ccc(cc2)O)C[C@H]1c1ccc(C)cc1)C(=O)C  
107438 N1(N=C(c2ccc(cc2)O)C[C@H]1c1ccc(C)cc1)C(=O)C  
107442 N1(N=C(c2c(cc(cc2)O)O)C[C@H]1c1ccc(cc1)C)C(=O)C  
107450 N1(N=C(c2c(cc(cc2)O)O)C[C@H]1c1ccc(cc1)C)C(=O)C  
107896 c1(c(cc(cc1C)C)C)[C@H](c1cccc1)O  
107898 c1([C@@H](OC(=O)C)c2cccc2)c(cc(cc1C)C)C  
107899 c1(c(cc(cc1C)C)C)[C@H](c1ccc(C)cc1)O  
107901 c1([C@@H](OC(=O)C)c2ccc(C)cc2)c(cc(cc1C)C)C  
107902 c1(c(cc(cc1C)C)C)[C@H](c1ccc(OC)cc1)O  
107904 c1([C@@H](OC(=O)C)c2ccc(OC)cc2)c(cc(cc1C)C)C  
107905 [N+](c1ccc([C@@H](c2c(cc(C)cc2C)C)O)cc1)([O-])=O  
107907 [N+](c1ccc([C@@H](c2c(cc(C)cc2C)C)OC(=O)C)cc1)([O-])=O  
108066 C\[C@](c1cccc1)(O)C=C\ c1cccc1  
110306 C([C@@H](C(=O)OCC)CCCC)(N1CCN(c2ncccn2)CC1)=O  
110308 C([C@@H](C(=O)OCC)CCCC)(N1CCN(c2ncccn2)CC1)=O  
110310 C([C@@H](C(=O)OCC)CCC)(N1CCN(c2ncccn2)CC1)=O  
110322 C([C@@H](C(=O)OCC)CCCC)(N1CCN(c2ncccn2)CC1)=O  
110340 C([C@@H](C(=O)OCC)CCCCCCC)(N1CCN(c2ncccn2)CC1)=O  
111538 C(#Cc1cccc1)[C@@H](c1cccc1)O  
111546 C(#Cc1cccc1)[C@H](c1cc(OC)ccc1)O  
111547 C(#Cc1cccc1)[C@@H](c1ccc(cc1)OC)O  
111548 C(#Cc1cccc1)[C@H](c1ccc(cc1)F)O  
111549 C(#Cc1cccc1)[C@H](c1cc(C)ccc1)O  
111551 C(#Cc1cccc1)[C@@H](c1ccc(cc1)Br)O  
111552 C(#Cc1cccc1)[C@@H](c1ccc(cc1)C)O  
111553 C(#Cc1cccc1)[C@H](c1c2c(cccc2)ccc1)O  
111714 C([C@@H](Cc1cccc1)C)(=O)OC  
111822 N1(C(c2c3c(cccc3)ccc2)=O)[C@@H](CC(C1)(C)C)CC  
111823 N1(C(c2c3c(cccc3)ccc2)=O)[C@@H](CC(C1)(C)C)CCC  
111824 N1(C(c2c3c(cccc3)ccc2)=O)CC(CC[C@H]1CC)(C)C  
112965 N1(C(c2c3c(cccc3)ccc2)=O)[C@@H](CC(C1)(C)C)C  
112968 C(N1[C@@H](CCC1)CCC)(c1c2c(cccc2)ccc1)=O  
112969 N1(C(c2c3c(cccc3)ccc2)=O)CC(C)(C)CC[C@H]1C  
112970 C(N1[C@H](CCC)CCCC1)(c1c2c(cccc2)ccc1)=O  
113038 N([C@H](c1occc1)C#N)C(c1cccc1)c1cccc1



113169 C(#Cc1cccc1)[C@](c1ccc(cc1)F)(O)C  
113170 C(#Cc1cccc1)[C@](c1ccc(cc1)Cl)(O)C  
113641 C(c1ccc(O[C@H](c2ccccc2)CCNC)cc1)(F)(F)F  
113665 n1cn(CC[C@H](Oc2c(cc(cc2)Cl)Cl)c2ccccc2)cc1  
113681 C(c1ccc(O[C@@H](CCn2cncc2)c2ccccc2)cc1)(F)(F)F  
113705 n1cn(CC[C@H](Oc2ccc(Cl)cc2)c2ccccc2)cc1  
113713 n1cn(CC[C@H](Oc2c(cc(cc2)Cl)Cl)c2ccc(cc2)Cl)cc1  
114061 C([C@H](C[N+](O)=O)c1cccc1)(C(=O)OC)C(=O)OC  
114734 C([C@H](c1ccc(O)cc1)N)(=O)O  
115000 C1(O[C@H](COC(=O)c2ccccc2)c2c1cccc2)=O  
115395 C(N[C@@H](Cc1cccc1)COCc1cccc1)(OC(C)(C)C)=O  
115396 c1([C@H](NC(OC(C)(C)C)=O)COCc2ccccc2)ncs1  
115521 [N+](c1c([C@@H](CC(=O)C)O)cccc1)(O)=O  
115853 c1(c(cc(cc1)Cl)Cl)[C@H](Cn1cncc1)O  
115858 c1(c(cc(cc1)Cl)Cl)[C@H](Cn1cncc1)O  
115979 N1(C([C@](c2ccccc2)(CC)C(NC1=O)=O)=O)C  
116056 C(N[C@H](C(=O)O)CCC)(=O)OCc1cccc1  
116281 C([C@H](C[N+](O)=O)c1ccc(F)cc1)(C(=O)OC)C(=O)OC  
116286 C([C@H](C[N+](O)=O)c1ccc(OC)cc1)(C(=O)OC)C(=O)OC  
116292 C([C@@H](c1ccc1)C[N+](O)=O)(C(=O)OC)C(=O)OC  
117044 C(N[C@H](C(=O)O)CC(C)C(=O)OC  
117157 N1(N=C(c2ccc(cc2)F)C[C@H]1c1ccc(cc1)Cl)C(=S)N  
117174 N1(N=C(c2ccc(cc2)F)C[C@H]1c1ccc(cc1)C)C(=S)N  
117191 N1(N=C(c2ccc(cc2)F)C[C@H]1c1occc1)C(=S)N  
117918 C1(c2c(cccc2)CC[C@@H]1ONc1cccc1)=O  
117952 C(#Cc1cccc1)[C@@](c1cc(OC)ccc1)(O)C  
118245 C(#Cc1cccc1)[C@@H](c1ccc(cc1)Cl)O  
118705 N1c2c(CC[C@H]1c1cccc1)cccc2  
119568 C([C@H](Cc1ccc(cc1)F)O)(=O)O  
119569 C([C@H](Cc1ccc(cc1)Cl)O)(=O)O  
119570 C([C@H](Cc1ccc(cc1)Br)O)(=O)O  
119571 C([C@@H](Cc1ccc(O)cc1)O)(=O)O  
121326 C(C(OC(C)C)=O)(C(OC(C)C)=O)[C@@H](C[N+](O)=O)c1cccc1  
121348 C([C@@H](C[N+](O)=O)c1ccc(F)cc1)(C(=O)OCC)C(=O)OCC  
123961 C([C@H](C[N+](O)=O)c1ccc(Cl)cc1)(C(=O)OC)C(=O)OC  
123962 C([C@H](C[N+](O)=O)c1ccc(Br)cc1)(C(=O)OC)C(=O)OC  
124149 C(N[C@H](C(=O)O)CCC)(=S)NCCC  
124150 C(N[C@H](C(=O)O)CCC)(=S)NCCCC  
124159 C(NC(C(=O)O)CCCC)(=S)NCCC  
124160 C(N[C@H](C(=O)O)CCCC)(=S)NCCCC  
124197 C(NC(C(=O)O)CCc1cccc1)(=S)NC  
124198 C(NC(C(=O)O)CCc1cccc1)(=S)NCC  
124199 C(NC(C(=O)O)CCc1cccc1)(=S)NCCC

124200 C(NC(C(=O)O)CCc1cccc1)(=S)NCCCC  
124227 c1(c[nH]c2c1cccc2)C[C@H](NC(=S)NC)C(=O)O  
124228 c1(c[nH]c2c1cccc2)C[C@H](NC(=S)NCC)C(=O)O  
124229 c1(c[nH]c2c1cccc2)C[C@H](NC(=S)NCCC)C(=O)O  
124230 c1(c[nH]c2c1cccc2)C[C@H](NC(=S)NCCCC)C(=O)O  
124278 N1(C(=S)NCCC)[C@@H](C(=O)O)CCCC1  
124279 N1(C(=S)NCCC)[C@@H](C(=O)O)CCCC1  
124297 C(N[C@H](C(=O)O)CCC(=O)O)(=S)NCCC  
124298 C(N[C@H](C(=O)O)CCC(=O)O)(=S)NCCCC  
125998 c1([C@H](CC(=O)c2cccc2)O)c2c(cccc2)ccc1  
126051 C(C(OC(C)(C)C)=O)(C(OC(C)(C)C)=O)[C@H](C[N+](O-)=O)c1cccc1  
126055 C([C@H](C[N+](O-)=O)c1ccc(C)cc1)(C(=O)OCC)C(=O)OCC  
126056 C([C@@H](C[N+](O-)=O)c1ccc(OC)cc1)(C(=O)OCC)C(=O)OCC  
126057 C([C@H](C[N+](O-)=O)c1ccc(Br)cc1)(C(=O)OCC)C(=O)OCC  
126058 C([C@@H](c1c(Cl)cccc1)C[N+](O-)=O)(C(=O)OCC)C(=O)OCC  
126062 C([C@@H](c1occc1)C[N+](O-)=O)(C(=O)OCC)C(=O)OCC  
126248 C(#Cc1cccc1)[C@](c1cccc1)(O)C  
126252 C(#Cc1cccc1)[C@](c1cc(Cl)ccc1)(O)C  
128036 C([C@H](CC(=O)C)c1cccc1)(C(=O)OC)C(=O)OC  
128037 C([C@H](CC(=O)C)c1cccc1)(C(=O)OCC)C(=O)OCC  
128038 C(C(OC(C)C)=O)(C(OC(C)C)=O)[C@H](CC(=O)C)c1cccc1  
128043 C([C@@H](c1c(C(F)F)F)cccc1)CC(=O)C(C(=O)OCC)C(=O)OCC  
128044 C([C@@H](c1occc1)CC(=O)C)(C(=O)OCC)C(=O)OCC  
128661 c1(c[nH]c2c1cccc2)C[C@@H](C(=O)OC)N  
128667 c1(c[nH]c2c1cccc2)C[C@H](C(=O)OCC)N  
128685 c1(c[nH]c2c1cccc2)C[C@H](N)CO  
128806 C([C@H](c1cccc1)O)(=O)OC  
128915 C(N[C@H](C(=O)O)C(C)C)(=O)N  
128921 C(N[C@H](C(=O)O)CO)(=O)N  
129823 N1(N[C@H](c2cc3OCOc3cc2CC1=O)c1ccc(cc1)N)C(=O)NC  
129829 N1(N[C@H](c2cc3OCOc3cc2CC1=O)c1ccc(cc1)N)C(=O)NCC  
129835 N1(N[C@H](c2cc3OCOc3cc2CC1=O)c1ccc(cc1)N)C(=O)NCCC  
130406 C(N[C@H](C(=O)O)CCC)(Nc1cc(cc(c1)Cl)Cl)=S  
130463 C(N[C@H](C(=O)O)CO)(Nc1c(c(Cl)ccc1)Cl)=S  
130464 C(N[C@H](C(=O)O)CO)(Nc1cc(cc(c1)Cl)Cl)=S  
130484 C(N[C@H](C(=O)O)Cc1cccc1)(Nc1c(cc(cc1)F)F)=S  
130487 C(N[C@H](C(=O)O)Cc1cccc1)(Nc1c(cc(cc1)F)F)=O  
130522 c1(c[nH]c2c1cccc2)C[C@H](NC(Nc1c(cc(cc1)F)F)=S)C(=O)O  
130525 c1(c[nH]c2c1cccc2)C[C@H](NC(Nc1c(cc(cc1)F)F)=O)C(=O)O  
130531 c1(c2c(ccc(c2)C)[nH]c1)C[C@H](NC(Nc1c(cc(cc1)F)F)=S)C(=O)O  
130533 c1(c2c(ccc(c2)C)[nH]c1)C[C@H](NC(Nc1c(cc(cc1)F)F)=O)C(=O)O  
130538 C(N[C@H](C(=O)O)Cc1ccc(O)cc1)(Nc1c(cc(cc1)F)F)=S  
130541 C(N[C@H](C(=O)O)Cc1ccc(O)cc1)(Nc1c(cc(cc1)F)F)=O

130547 C(N[C@H](C(=O)O)Cc1cc(O)ccc1)(Nc1c(cc(cc1)F)F)=S  
130549 C(N[C@H](C(=O)O)Cc1cc(O)ccc1)(Nc1c(cc(cc1)F)F)=O  
130553 C(N[C@H](CC(=O)O)c1ccccc1)(Nc1c(cc(cc1)F)F)=S  
130555 C(NC(CC(=O)O)c1ccccc1)(Nc1c(cc(cc1)F)F)=O  
130561 C(Nc1c(cc(cc1)F)F)(N[C@H](C(=O)O)CC)=S  
130590 C(N[C@@H](C(=O)O)CC=C)(Nc1cc(cc(c1)Cl)Cl)=S  
130592 C(N1[C@H](C(=O)O)CCC1)(Nc1c(cc(cc1)F)F)=S  
130593 C(N1[C@H](C(=O)O)CCC1)(Nc1c(c(Cl)ccc1)Cl)=S  
130594 C(N1[C@H](C(=O)O)CCC1)(Nc1cc(Cl)cc(c1)Cl)=S  
130596 C(N1C[C@@H](C(=O)O)CCC1)(Nc1c(cc(cc1)F)F)=S  
130598 C(N1[C@@H](C(=O)O)CCCC1)(Nc1c(cc(cc1)F)F)=S  
130613 C(Nc1c(c(Cl)ccc1)Cl)(N[C@@H](CC(=O)O)C(=O)O)=S  
130614 C(N[C@@H](CC(=O)O)C(=O)O)(Nc1cc(cc(c1)Cl)Cl)=S  
135510 C([C@@H](NC(=O)C)CC(C)C)(=O)O  
136160 C([C@H](Oc1ccc(C)cc1)CC)(=O)O  
136218 C(#Cc1ccccc1)[C@](c1ccc(cc1)Br)(O)C  
136221 C(#Cc1ccccc1)[C@@](c1cc(C)ccc1)(O)C  
136224 C(#Cc1ccccc1)[C@@](c1ccc(cc1)C)(O)C  
136758 N1(C([C@](c2ccccc2)(C)C(NC1=O)=O)=O)C  
136773 N1(C([C@@](c2ccccc2)(CCC)C(NC1=O)=O)=O)C  
136779 N1(C([C@@](c2ccccc2)(CCC)C(NC1=O)=O)=O)C  
136786 N1(C([C@@](C2=CCCC2)(CC)C(NC1=O)=O)=O)C  
136787 N1(C([C@@](c2ccccc2)(CCCC)C(NC1=O)=O)=O)C  
136793 N1(C([C@@](c2ccccc2)(CCCC)C(NC1=O)=O)=O)C  
136807 N1(C([C@@](C2=CCCC2)(C)C(NC1=O)=O)=O)CC  
136814 N1(C([C@](C2=CCCC2)(C)C(NC1=O)=O)=O)CCC  
136938 N=1C(C(Nc2c(C1c1ccccc1)cc(Cl)cc2)=O)(Cc1ccccc1)CO  
136942 N1=C(c2c(ccc(c2)Cl)NC([C@H]1CO)=O)c1ccccc1  
139143 C(#Cc1ccccc1)[C@@H](c1cc2ccccc2cc1)O  
139147 C(#Cc1ccccc1)[C@@](c1ccc(cc1)OC)(O)C  
139706 C12=C(NC(=O)N[C@@H]1c1ccccc1)CC(CC2=O)(C)C  
139714 C12=C(NC(=O)N[C@@H]1c1c(Cl)ccc1)CC(CC2=O)(C)C  
139722 C12=C(NC(=O)N[C@@H]1c1cc(Cl)ccc1)CC(CC2=O)(C)C  
139730 C12=C(NC(=O)N[C@@H]1c1ccc(Cl)cc1)CC(CC2=O)(C)C  
139738 C12=C(NC(=O)N[C@@H]1c1c(Br)ccc1)CC(CC2=O)(C)C  
139746 C12=C(NC(=O)N[C@@H]1c1cc(Br)ccc1)CC(CC2=O)(C)C  
139754 C12=C(NC(=O)N[C@@H]1c1ccc(Br)cc1)CC(CC2=O)(C)C  
139762 C12=C(NC(=O)N[C@@H]1c1c(C)ccc1)CC(CC2=O)(C)C  
139770 C12=C(NC(=O)N[C@@H]1c1cc(C)ccc1)CC(CC2=O)(C)C  
139778 C12=C(NC(=O)N[C@@H]1c1ccc(C)cc1)CC(CC2=O)(C)C  
139788 C12=C(NC(=O)N[C@@H]1c1c(OC)ccc1)CC(CC2=O)(C)C  
139796 C12=C(NC(=O)N[C@@H]1c1cc(OC)ccc1)CC(CC2=O)(C)C  
139810 C12=C(N(C(=O)N[C@@H]1c1ccccc1)C)CC(CC2=O)(C)C

139812 C12=C(N(C(=O)N[C@@H]1c1c(Cl)cccc1)C)CC(CC2=O)(C)C  
139814 C12=C(N(C(=O)N[C@@H]1c1cc(Cl)ccc1)C)CC(CC2=O)(C)C  
139816 C12=C(N(C(=O)N[C@@H]1c1ccc(Cl)cc1)C)CC(CC2=O)(C)C  
139818 C12=C(N(C(=O)N[C@@H]1c1c(Br)cccc1)C)CC(CC2=O)(C)C  
139820 C12=C(N(C(=O)N[C@@H]1c1cc(Br)ccc1)C)CC(CC2=O)(C)C  
139822 C12=C(N(C(=O)N[C@@H]1c1ccc(Br)cc1)C)CC(CC2=O)(C)C  
139824 C12=C(N(C(=O)N[C@@H]1c1c(C)cccc1)C)CC(CC2=O)(C)C  
139826 C12=C(N(C(=O)N[C@@H]1c1cc(C)ccc1)C)CC(CC2=O)(C)C  
139828 C12=C(N(C(=O)N[C@@H]1c1ccc(C)cc1)C)CC(CC2=O)(C)C  
139830 C12=C(N(C(=O)N[C@@H]1c1c(OC)cccc1)C)CC(CC2=O)(C)C  
139832 C12=C(N(C(=O)N[C@@H]1c1cc(OC)ccc1)C)CC(CC2=O)(C)C  
141244 c1([C@H](CC(=O)C)O)c(Br)cccc1  
141368 C([C@@H](Cc1cccc1)C)=O  
142694 N([C@](C(OC(C)C)C)=O)(C#N)c1cccc1)(C(=O)OC)NC(=O)OC  
142697 N([C@](C(OC(C)C)C)=O)(C#N)c1ccc(OC)cc1)(C(=O)OC)NC(=O)OC  
142698 N([C@](C(OC(C)C)C)=O)(C#N)c1ccc(Cl)cc1)(C(=O)OC)NC(=O)OC  
142699 N([C@](C(OC(C)C)C)=O)(C#N)c1ccc(C)cc1)(C(=O)OC)NC(=O)OC  
142955 C(N[C@@H](C(OC(C)C)=O)Cc1cccc1)(OC(C)C)C=O  
143387 C1([C@@](Cc2cccc2)(O)CCCC1)=O  
143517 C(#Cc1cccc1)[C@@H](c1cc(Cl)ccc1)O  
143703 C1(=C(N(C=C[C@H]1c1ccc([N+](O-)=O)cc1)c1ccc(OC)cc1)C)C(=O)OCC  
143704 C1(=C(N(C=C[C@H]1c1ccc([N+](O-)=O)cc1)c1cc(OC)ccc1)C)C(=O)OCC  
143710 C1(=C(N(C=C[C@H]1c1ccc([N+](O-)=O)cc1)c1ccc(OC)cc1)C)C(=O)OC  
143713 C1(=C(N(C=C[C@H]1c1ccc([N+](O-)=O)cc1)c1cc(OC)ccc1)C)C(=O)OC  
143719 C1(=C(N(C=C[C@H]1c1c([N+](O-)=O)cccc1)c1ccc(cc1)OC)C)C(=O)OCC  
143720 C1(=C(N(C=C[C@H]1c1c([N+](O-)=O)cccc1)c1cc(OC)ccc1)C)C(=O)OCC  
143721 C1(=C(N(C=C[C@H]1c1c([N+](O-)=O)cccc1)c1ccc(cc1)OC)C)C(=O)OC  
143722 C1(=C(N(C=C[C@H]1c1c([N+](O-)=O)cccc1)c1cc(OC)ccc1)C)C(=O)OC  
145713 [N+](c1c([C@H](CC(=O)CC)O)cccc1)([O-])=O  
146171 P(C[C@@H]1C(=O)CCC1)(=O)(OCC)OCC  
146173 P(C[C@@H]1C(=O)COC1)(=O)(OCC)OCC  
147344 C([C@H](NC(=O)CN)CO)(=O)O  
147350 C([C@H](NC(=O)CN)C(C)C)(=O)O  
148538 C(Nc1c(OCCCCC)cccc1)(O[C@@H](CN1CCN(C)CC1)COC)=O  
148568 C(Nc1ccc(OCCC)cc1)(O[C@@H](CN1CCN(C)CC1)COC)=O  
148574 C(Nc1ccc(OCCC)cc1)(O[C@@H](CN1CCN(C)CC1)COC)=O  
151693 C(C(=O)c1cccc1)[C@@H](c1cc2cccc2cc1)O  
152426 N1C(c2cccc2N[C@@H]1c1cccc1)=O  
152820 C(N[C@H](C(=O)OC)c1cccc1)(=O)OCc1cccc1  
158126 C([C@@H](c1ccc(Cl)cc1)CC(=O)C)(C(=O)OCC)C(=O)OCC  
158127 C([C@@H](c1ccc(Br)cc1)CC(=O)C)(C(=O)OCC)C(=O)OCC  
158131 C([C@@H](c1ccc(C)cc1)CC(=O)C)(C(=O)OCC)C(=O)OCC  
158134 C([C@@H](c1ccc(OC)cc1)CC(=O)C)(C(=O)OCC)C(=O)OCC

158137 C([C@@H](c1sccc1)CC(=O)C)(C(=O)OCC)C(=O)OCC  
158258 c1([C@@H]2CC(=O)CC2)ccc(cc1)OC  
162728 C([C@@H](C[N+](O-)=O)c1cccc1)(C(=O)OCC)(C(=O)OCC)F  
164148 N(C(c1cccc1)c1cccc1)[C@@H](C#N)c1ccc(OC)cc1  
164151 N([C@@H](c1sccc1)C#N)C(c1cccc1)c1cccc1  
164295 C1(=C(NC=2CC(C)(C)CC(C2[C@H]1c1cccc1)=O)C)C(=O)OCC  
164296 C1(=C(NC=2CC(C)(C)CC(C2[C@H]1c1ccc(cc1)Br)=O)C)C(=O)OCC  
164304 C1(=C(NC=2CC(C)(C)CC(C2[C@H]1c1ccc(C#N)cc1)=O)C)C(=O)OCC  
164386 c1([C@@H]2CC(=O)CC2)cc(Br)ccc1  
164387 c1([C@H]2CC(=O)CC2)ccc(cc1)F  
164494 C1([C@](c2cccc2N1)(c1ccc(cc1)C)C)=O  
164495 C1([C@](c2cccc2N1)(c1ccc(cc1)C)CC)=O  
164732 C(C(OC(C)(C)C)=O)(C(OC(C)(C)C)=O)[C@@H](c1cc(OC)c(cc1)OC)C[N+](O-)=O  
164736 C([C@@H](c1occc1)C[N+](O-)=O)(C(OC(C)(C)C)=O)C(OC(C)(C)C)=O  
165840 C([C@H](c1c(Cl)cccc1)C[N+](O-)=O)(C(=O)OC)C(=O)OC  
166222 C([C@@H](C[N+](O-)=O)c1ccc(Cl)cc1)(C(=O)OCC)C(=O)OCC  
166223 C([C@H](c1c(C(F)(F)F)cccc1)C[N+](O-)=O)(C(=O)OCC)C(=O)OCC  
166224 C([C@H](c1c(cc(cc1)Cl)Cl)C[N+](O-)=O)(C(=O)OCC)C(=O)OCC  
168178 c1(n(c2ccc(C([C@@H](N3CCN(c4cc(C(F)(F)F)ccc4)CC3)C)=O)cc2o1)C)=O  
168190 c1(n(c2ccc(C([C@@H](N3CCN(CC3)c3ccc(cc3)F)C)=O)cc2o1)C)=O  
168195 c1([nH]c2ccc(C([C@@H](N3CCN(c4cc(C(F)(F)F)ccc4)CC3)C)=O)cc2o1)=O  
168206 c1([nH]c2ccc(C([C@@H](N3CCN(CC3)c3ccc(cc3)F)C)=O)cc2o1)=O  
168470 C(N[C@@H](C(=O)O)CC(C)C)(OC(C)(C)C)=O  
168530 C(N[C@H](C(=O)OCC)CC(C)C)(OC(C)(C)C)=O  
168788 N1(c2c(OC)cccc2)CCN(CC1)C[C@@H](COc1c2c(cccc2)ccc1)O  
168797 N1(c2ccc(cc2)O)CCN(CC1)C[C@@H](COc1c2c(cccc2)ccc1)O  
168805 N1(c2ccc(cc2)OC)CCN(CC1)C[C@@H](COc1c2c(cccc2)ccc1)O  
168813 N1(c2ccc(cc2)OCC)CCN(CC1)C[C@@H](COc1c2c(cccc2)ccc1)O  
168829 N1(c2ccc(cc2)Cl)CCN(CC1)C[C@@H](COc1c2c(cccc2)ccc1)O  
168845 N1(c2cc(OC)ccc2)CCN(C[C@@H](COc2c3c(cccc3)ccc2)O)CC1  
168853 N1(c2cc(OCC)ccc2)CCN(C[C@@H](COc2c3c(cccc3)ccc2)O)CC1  
168861 N1(c2cc(Cl)ccc2)CCN(C[C@@H](COc2c3c(cccc3)ccc2)O)CC1  
169507 C1(S(=O)(=O)c2cccc2)(S(=O)(=O)c2cccc2)CC(=C)[C@H](C1)C(OC)(C)C  
169508 C1(S(=O)(=O)c2cccc2)(S(=O)(=O)c2cccc2)C\C=C\c2cccc2[C@H](C1)C(OC)(C)C  
171775 c12c([nH]cc2)cccc1OC[C@H](CNC(C)C)O  
176561 n1c(Nc2cc(OC(C)C)[nH]n2)c(Cl)cnc1N[C@H](c1ncc(cn1)F)C  
180115 C(c1cc(C(F)(F)F)cc(NNC([C@H](N2CCN(CC2)C)c2c(F)cccc2)=O)c1)(F)(F)F  
180120 c1([C@H](C(NNc2cc(C(F)(F)F)cc(C(F)(F)F)c2)=O)N2CCN(C)CC2)c(c(F)ccc1)F  
180122 c1([C@H](C(NNc2cc(C(F)(F)F)cc(C(F)(F)F)c2)=O)N2CCN(CC2)C)c(F)cccc1F  
181223 C(C(OC(C)(C)C)=O)(c1n(ccc1)CC)C(C(=O)OCC)C(=O)OCC  
181229 C([C@H](c1c(cc[nH]1)C)C(C(=O)OCC)C(=O)OCC)(OC(C)(C)C)=O  
181297 C([C@@H](c1cc(Cl)c(cc1)Cl)C[N+](O-)=O)(C(=O)OCC)C(=O)OCC  
181530 C(C(=O)OCC)[C@@H](c1cccc1)O

183380 c12nc(n3c(ncc3)c3ccccc3)ncc1N(C(=O)[C@@]1(N2CCCC1)CC)C  
183381 c12nc(n3c(ncc3)c3cc(F)ccc3)ncc1N(C(=O)[C@@]1(N2CCCC1)CC)C  
183384 c12nc(n3cnc3)ncc1N(C(=O)[C@@]1(N2CCCC1)CC)C  
188645 c1([C@H](OC(=O)C)Cn2cncc2)c(cc(cc1)Cl)Cl  
189350 n1c(Nc2n[nH]c(c2)C)c(Cl)cnc1N[C@H](c1ncc(cn1)F)C  
197212 C(O[C@H](C#N)c1cccc1)(=O)c1cccc1  
197558 c1(C([C@H](OCc2cc3ccccc3cc2)Cc2cccc2)=O)n(ccn1)C  
197564 c1(C([C@H](OCc2cc3ccccc3cc2)Cc2ccc(C(C)(C)C)cc2)=O)n(ccn1)C  
197567 C([C@@H](OCc1cc2cccc2cc1)Cc1cccc1)(=O)OC  
197568 C([C@@H](OCc1cc2cccc2cc1)Cc1ccc(C(C)(C)C)cc1)(=O)OC  
198803 c1([C@](c2cccc2)(O)C)c(C)cccc1  
198809 c1([C@@](c2cccc2)(O)C)c(OC)cccc1  
198811 c1([C@@](c2cccc2)(O)C)ccc(cc1)OC  
199352 [N+](c1c([C@@H](CC(=O)CO)O)cccc1)([O-])=O  
200523 C(N[C@@H](C(C#N)C#N)c1c(C)cccc1)(OC(C)(C)C)=O  
200524 C(N[C@@H](C(C#N)C#N)c1ccc(cc1)C)(OC(C)(C)C)=O  
200685 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cccc2)c(oc(c1)c1cccc1)c1cccc1  
200686 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cccc2)c(oc(c1)c1ccc(cc1)F)c1ccc(F)cc1  
200687 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cccc2)c(oc(c1)c1ccc(cc1)Cl)c1ccc(Cl)cc1  
200688 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cccc2)c(oc(c1)c1ccc(cc1)Br)c1ccc(Br)cc1  
200689 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cccc2)c(oc(c1)c1cc(Cl)ccc1)c1cc(Cl)ccc1  
200691 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cccc2)c(oc(c1)c1cc(OC)ccc1)c1cc(OC)ccc1  
200692 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cccc2)c(oc(c1)c1cc2cccc2cc1)c1cc2cccc2cc1  
200694 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cc(F)ccc2)c(oc(c1)c1cccc1)c1cccc1  
200695 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2c(F)ccc2)c(oc(c1)c1cccc1)c1cccc1  
200696 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cc(C)ccc2)c(oc(c1)c1cccc1)c1cccc1  
200697 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2c(OC)ccc2)c(oc(c1)c1cccc1)c1cccc1  
200698 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2ccc(cc2)OC)c(oc(c1)c1cccc1)c1cccc1  
200705 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cccc2)c([nH]c(c1)c1cccc1)c1cccc1  
200706 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cccc2)c([nH]c(c1)c1ccc(cc1)F)c1ccc(F)cc1  
200707 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cccc2)c([nH]c(c1)c1ccc(cc1)Cl)c1ccc(Cl)cc1  
200708 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cccc2)c([nH]c(c1)c1ccc(cc1)Br)c1ccc(Br)cc1  
200709 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cccc2)c([nH]c(c1)c1cc(Cl)ccc1)c1cc(Cl)ccc1  
200710 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cccc2)c([nH]c(c1)c1cc(OC)ccc1)c1cc(OC)ccc1  
200711 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cccc2)c([nH]c(c1)c1cc2cccc2cc1)c1cc2cccc2cc1  
200712 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cc(F)ccc2)c([nH]c(c1)c1cccc1)c1cccc1  
200714 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2cc(C)ccc2)c([nH]c(c1)c1cccc1)c1cccc1  
200715 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2c(OC)ccc2)c([nH]c(c1)c1cccc1)c1cccc1  
200716 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2ccc(cc2)OC)c([nH]c(c1)c1cccc1)c1cccc1  
200718 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2c3c(cccc3)ccc2)c([nH]c(c1)c1cccc1)c1cccc1  
200720 c1([C@@]2(C(Nc3c2cccc3)=O)C)c([nH]c(c1)c1cccc1)c1cccc1  
200721 c1([C@@]2(C(Nc3c2cccc3)=O)CCCC)c([nH]c(c1)c1cccc1)c1cccc1  
200723 c1([C@@]2(C(Nc3c2cccc3)=O)Cc2c(F)ccc2)c([nH]c(c1)c1cccc1)c1cccc1

200749 C(N[C@@H](C(=O)OCC)Cc1cccc1)(OC(C)(C)C)=O  
200900 c12c(c3cccc3[nH]1)CC[N@@]([C@H]2c1ccc(Br)cc1)Cc1c2c(cccc2)ccc1  
200913 c12c(c3cccc3[nH]1)CC[N@@]([C@H]2c1cccc1)Cc1c2c(cccc2)ccc1  
200914 c12c(c3cccc3[nH]1)CC[N@@]([C@H]2c1ccc(OC)cc1)Cc1c2c(cccc2)ccc1  
200966 C([C@@H](CC(=O)OC)c1cccc1)(C(=O)OC)C(=O)OC  
200977 C([C@@H](CC(=O)OC)c1cccc1)(C(=O)OCC)C(=O)OCC  
201588 N1([C@H](c2cccc2CC1)Cc1cccc1)C(=O)OC  
202955 C1([C@@](c2cccc2)(O)CCCC1)=O  
204377 C=1([C@]2(C(Nc3c2ccc3OC)=O)C(OC1C)=O)[Si](C(C)C)(C(C)C)C(C)C  
204378 C=1([C@]2(C(Nc3c2cc(cc3)Br)=O)C(OC1C)=O)[Si](C(C)C)(C(C)C)C(C)C  
205423 C1([C@](c2cccc2)(CO)CCCC1)=O  
206419 C([C@H]1[N@@](NC(=O)c2cccc2)CCc2cccc12)#Cc1cccc1  
206421 C([C@H]1[N@@](NC(=O)c2cccc2)CCc2cc(C)ccc12)#Cc1cccc1  
206424 C([C@H]1[N@@](NC(=O)c2cccc2)CCc2cc(Br)ccc12)#Cc1cccc1  
206426 C([C@H]1[N@@](NC(=O)c2cccc2)CCc2cc(OC)ccc12)#Cc1cccc1  
206428 C([C@H]1[N@@](NC(=O)c2cccc2)CCc2cccc12)#Cc1c(C)cccc1  
206429 C([C@H]1[N@@](NC(=O)c2cccc2)CCc2cccc12)#Cc1cc(C)ccc1  
206430 C([C@H]1[N@@](NC(=O)c2cccc2)CCc2cccc12)#Cc1ccc(C)cc1  
206432 C([C@H]1[N@@](NC(=O)c2cccc2)CCc2cccc12)#Cc1ccc(OC)cc1  
206433 C([C@H]1[N@@](NC(=O)c2cccc2)CCc2cccc12)#CC1=CCCCC1  
206435 C([C@H]1[N@@](NC(=O)c2cccc2)CCc2cccc12)#CC1CC1  
206436 C([C@H]1[N@@](NC(=O)c2cccc2)CCc2cccc12)#CC1CCCC1  
206438 C([C@]1([N@@](NC(=O)c2cccc2)CCc2c1cccc2)C)#Cc1cccc1  
206439 C([C@]1([N@@](NC(=O)c2cccc2)CCc2c1cccc2)C)#Cc1ccc(C)cc1  
206441 C([C@]1([N@@](NC(=O)c2cccc2)CCc2c1cccc2)C)#Cc1ccc(OC)cc1  
206442 C([C@]1([N@@](NC(=O)c2cccc2)CCc2c1cccc2)C)#CC1=CCCCC1  
206443 C([C@]1([N@@](NC(=O)c2cccc2)CCc2c1cccc2)C)#CC1CC1  
206444 C([C@]1([N@@](NC(=O)c2cccc2)CCc2c1cccc2)C)#CC1CCCC1  
206707 c1([C@H]2CC(=O)CC2)ccc(cc1)Br  
206709 c1([C@H]2CC(=O)CC2)ccc(C(=O)C)cc1  
208360 C(\[C@@](C(OC(C)(C)C)=O)(C#N)c1cccc1)(=C\C(=O)OC)C(=O)OC  
208361 C(\[C@@](C(OC(C)(C)C)=O)(C#N)c1ccc(OC)cc1)(=C\C(=O)OC)C(=O)OC  
208362 C(\[C@@](C(OC(C)(C)C)=O)(C#N)c1ccc(C)cc1)(=C\C(=O)OC)C(=O)OC  
208363 C(\[C@@](C(OC(C)(C)C)=O)(C#N)c1ccc(Cl)cc1)(=C\C(=O)OC)C(=O)OC  
209489  
C(C(Oc1cccc1)=O)(C(Oc1cccc1)=O)[C@@H](c1cc(C(C)(C)C)c(c1)C(C)(C)C)O)c1ccc([N+](O)=O)cc1  
209491 C(C(Oc1cccc1)=O)(C(Oc1cccc1)=O)[C@@H](c1cc(c(O)c(c1)C(C)(C)C)C(C)(C)C)c1cc(Br)ccc1  
209494  
C(C(Oc1cccc1)=O)(C(Oc1cccc1)=O)[C@@H](c1cc(c(O)c(c1)C(C)(C)C)C(C)(C)C)c1cc(OC)c(cc1)OC  
209495  
C([C@@H](c1cc(c(O)c(c1)C(C)(C)C)C(C)(C)C)c1c2c(cccc2)ccc1)(C(Oc1cccc1)=O)C(Oc1cccc1)=O  
209498 C(C(Oc1cccc1)=O)(C(Oc1cccc1)=O)[C@@H](c1cc(C(C)(C)C)c(c1)C(C)(C)C)O)C(C)(C)C

209806 O1c2c(CC[C@H]1c1cccc1)cccc2  
 210534 c1(NC[C@@H](c2cccc2)OC)c(cc(F)cc1F)F  
 210535 c1(c(c(F)c(c(c1F)F)F)F)NC[C@@H](c1cccc1)OC  
 210536 c1(NC[C@@H](c2cccc2)O)c(cc(F)cc1F)F  
 210688 c12[C@@H](NCCc2cc(c(c1)OC)OC)c1cccc1  
 210695 c12[C@@H](c3c(C)cccc3)NCCc2cc(c(c1)OC)OC  
 210696 c12[C@@H](c3c(OC)cccc3)NCCc2cc(c(c1)OC)OC  
 210698 c12[C@@H](c3c(cc(cc3)OC)OC)NCCc2cc(c(c1)OC)OC  
 210701 c12[C@@H](c3c(Cl)cccc3)NCCc2cc(c(c1)OC)OC  
 210702 c12[C@@H](c3c(Br)cccc3)NCCc2cc(c(c1)OC)OC  
 210706 c1([C@@H]2c3c(cccc3)CCN2)c(Cl)cccc1  
 210709 c12[C@@H](c3c(Cl)cccc3)NCCc1cc(cc2)OC  
 210710 c12[C@@H](c3c(C)cccc3)NCCc1ccc(c2)OC  
 210711 c12[C@@H](c3c(OC)cccc3)NCCc1ccc(c2)OC  
 210712 c12[C@@H](c3c(Cl)cccc3)NCCc1ccc(c2)OC  
 210713 c12[C@@H](c3c(Br)cccc3)NCCc1ccc(c2)OC  
 211297 N1([C@@H](C2c(C1)cccc2)c1c(C)cccc1)C(=O)C  
 211972 C1(N(c2cccc2[C@@]1(c1cccc1)CC)C)=O  
 212400 C1([C@](c2cc3cccc3cc2)(\ C=C/C(=O)OCC)c2c(cccc2)N1)=O  
 212411 C1([C@@](C#CC(=O)OCC)(c2cc3cccc3cc2)c2c(cccc2)N1)=O  
 216325 [nH]1c2c(c(OC[C@H](CNC(C)C)O)ccc2)c2c1cccc2  
 216463 c12c(c3c(cc(OC)cc3)oc1ccc(C(N[C@H](CC(C)C)CO)=O)c2)=O  
 216479 c12c(c3c(cc(OC)cc3)oc1ccc(C(N[C@H](C(C)C)CO)=O)c2)=O  
 216493 c12c(c3ccc(cc3oc1ccc(C(N[C@@H](CO)C)=O)c2)OC)=O  
 216502 c12c(c3ccc(cc3oc1ccc(C(NC[C@H](O)C)=O)c2)OC)=O

## 2. Statistics for Each Cluster

CSP CLUSTER ZSCORE NPAIR MEANDIFF STDEVDIFF

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 23735 11 6.54 1 0.86 0.00  
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 23735 13 6.39 1 0.84 0.00  
 23735 14 6.29 1 0.83 0.00  
 23735 15 6.21 1 0.82 0.00  
 23735 16 6.16 1 0.81 0.00  
 23735 17 6.16 1 0.81 0.00  
 23735 18 6.04 1 0.80 0.00  
 23735 19 6.03 1 0.80 0.00



23735 2 7.75 10 0.31 0.13  
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### 3. Compound Membership in Each Cluster and the Citation for Each Compound

CSP\_NO CLUSTER MOLECULE COMPOUND\_NAME CITATION

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- 91423 10 1 168853 Liu, X.-W.; Yuan, M.; Ji, H.; Journal of Chinese Pharmaceutical Sciences, 19, 293–299, 2010.
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91423 11 1 168853 Liu,X.-W.; Yuan, M.; Ji, H.; Journal of Chinese Pharmaceutical Sciences, 19, 293–299, 2010.

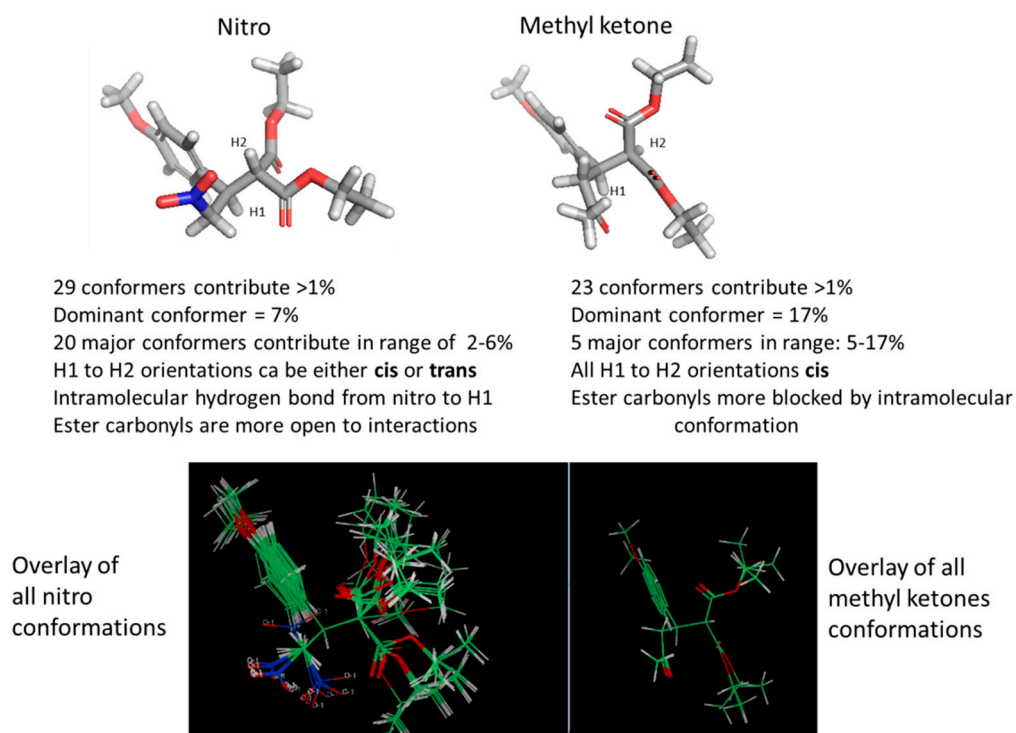
91423 11 2 168797 Liu,X.-W.; Yuan, M.; Ji, H.; Journal of Chinese Pharmaceutical Sciences, 19, 293–299, 2010.

#### 4. Computational Modeling

Our general approach for conformational sampling including the detailed computational workflow, has been published elsewhere [1]. A subset of the details of the computational methodology is provided here. Conformers of each structure were geometry optimized at the B3LYP/6–31G\*\* level and stationary points were confirmed by performing frequency calculations (scaled by 0.98) [2–11]. All calculations were performed using Gaussian 09 [11]. Conformations contributing to the *in vacuo* Boltzmann distribution were calculated and used to interpret conformational differences induced by various substitution.

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#### 5. Minimized Conformations for Nitro and Methyl ketone Analogs from MMP Shown in Figure 2 from manuscript



**Figure S1.** Minimized Conformations for Nitro and Methyl ketone Analogs from MMP.

Coordinates for lowest energy conformer of each species. All conformations for each compound available upon request.

Lowest energy nitro compound

B3LYP/6-31G\*\* Electronic energy = -203.620229 hartrees

6 -5.48697 0.804433 0.701257  
 1 -5.0763 0.459098 1.65289  
 1 -5.25714 1.86699 0.582481  
 1 -6.57531 0.688973 0.733903  
 6 -4.92109 -0.005031 -0.453985  
 1 -5.32622 0.321628 -1.41396  
 1 -5.10999 -1.07278 -0.323911  
 6 -2.69203 -0.564694 0.180437  
 6 -1.22627 -0.191059 -0.051374  
 1 -1.03683 -0.260564 -1.12248  
 6 -1.05546 1.26601 0.387512  
 8 -3.48882 0.199941 -0.586279  
 8 -3.09146 -1.41638 0.946878  
 8 -1.19817 1.64275 1.53135  
 8 -0.730971 2.06151 -0.642229  
 6 -0.53763 3.46263 -0.321028  
 1 -1.46142 3.85005 0.11917  
 1 0.248745 3.54047 0.435419

6 -0.170984 4.17595 -1.60704  
1 -0.014137 5.24044 -1.40753  
1 0.749456 3.76597 -2.03189  
1 -0.967562 4.07839 -2.3499  
6 -0.244929 -1.07691 0.758556  
1 -0.548879 -0.9699 1.80536  
6 3.89128 0.234333 0.496072  
6 3.18149 -0.063328 -0.672555  
6 1.84919 -0.473795 -0.5885  
6 1.19827 -0.599282 0.644036  
6 1.92623 -0.28708 1.80331  
6 3.25103 0.12255 1.73834  
1 3.64871 0.016376 -1.64655  
1 1.32244 -0.698192 -1.51098  
1 1.44246 -0.361456 2.77363  
1 3.81116 0.364235 2.63544  
8 5.19239 0.641918 0.533455  
6 5.89818 0.752076 -0.693366  
1 6.90684 1.07469 -0.431847  
1 5.44262 1.49742 -1.3578  
1 5.9515 -0.210311 -1.21774  
6 -0.377591 -2.5938 0.499353  
1 0.279379 -3.14879 1.16687  
1 -1.41351 -2.91019 0.624873  
7 0.017223 -3.01652 -0.889572  
8 0.913255 -3.84346 -1.00423  
8 -0.600323 -2.51064 -1.83077

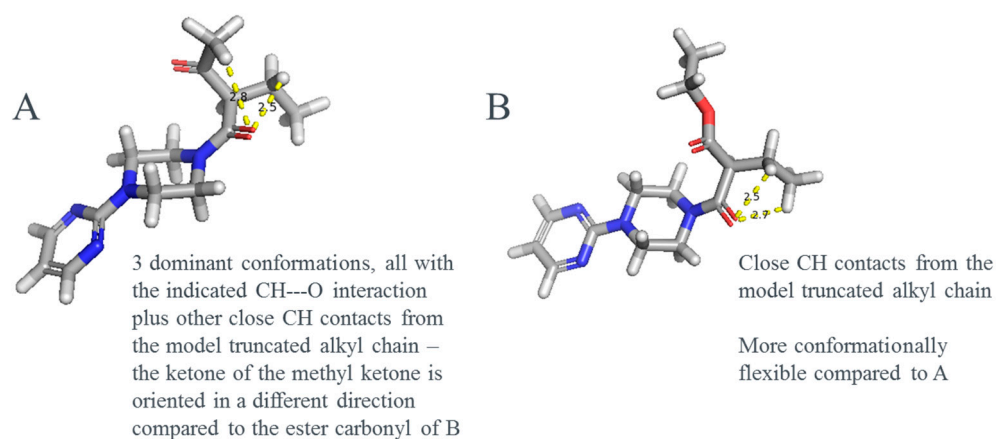
#### Lowest energy methyl ketone compound

B3LYP/6-31G\*\* Electronic energy = -1151.768991hartrees

6 4.44005 -1.17952 -2.88048  
1 3.7951 -2.02205 -3.1443  
1 4.28571 -0.380958 -3.61193  
1 5.48136 -1.50977 -2.94639  
6 4.14587 -0.696321 -1.47458  
1 4.7727 0.152951 -1.18751  
1 4.27475 -1.48739 -0.731073  
6 2.3145 0.202129 -0.272748  
6 0.79866 0.394062 -0.295728  
1 0.514496 0.641483 -1.32171  
6 0.46189 1.60002 0.577857  
8 2.75539 -0.279462 -1.44259  
8 3.0175 0.416283 0.695125

8 0.018598 1.58115 1.70641  
8 0.750395 2.73533 -0.08731  
6 0.551597 3.96938 0.645132  
1 -0.497303 4.0295 0.951065  
1 1.1608 3.93762 1.55342  
6 0.947138 5.11068 -0.270783  
1 0.812269 6.06488 0.247834  
1 1.99576 5.0266 -0.569352  
1 0.330578 5.11995 -1.17404  
6 0.070227 -0.938378 0.091368  
1 0.451969 -1.67547 -0.62307  
6 -4.20497 -0.66051 -0.658029  
6 -3.69295 -0.251545 0.577658  
6 -2.31968 -0.337683 0.824375  
6 -1.43195 -0.830253 -0.137835  
6 -1.96951 -1.23644 -1.37091  
6 -3.33008 -1.15451 -1.6355  
1 -4.34522 0.134565 1.35193  
1 -1.93958 0.002135 1.78131  
1 -1.30646 -1.63302 -2.13627  
1 -3.74106 -1.47555 -2.58702  
8 -5.52568 -0.622483 -1.00657  
6 -6.45655 -0.13951 -0.051668  
1 -7.43603 -0.198592 -0.528606  
1 -6.25253 0.903352 0.223505  
1 -6.46121 -0.753934 0.85793  
6 0.46319 -1.46001 1.48797  
1 -0.309985 -2.15768 1.84049  
1 0.504483 -0.655813 2.22577  
8 2.22824 -2.76746 0.500609  
6 1.76771 -2.25334 1.50644  
6 2.45525 -2.37562 2.84885  
1 1.73883 -2.5669 3.65442  
1 2.9417 -1.41668 3.06403  
1 3.21094 -3.16185 2.81595

**6. General Differences in Preferred Conformations for Keto and Keto Ester Analogs Shown in Figure 4e from manuscript.**



**Figure S2.** General Differences in Preferred Conformations for Keto and Keto Ester Analogs.

Coordinates for lowest energy conformer of each species. All conformations for each compound available upon request.

Lowest energy ketone compound A

B3LYP/6-31G\*\* Electronic energy = -15.039736 hartrees

6 -5.26297 -0.850081 0.410776  
 6 -5.86033 0.1668 -0.332345  
 6 -4.98723 1.12362 -0.847704  
 7 -3.66992 1.08897 -0.657713  
 6 -3.19772 0.055441 0.076274  
 7 -3.9511 -0.924399 0.626036  
 7 -1.84324 -0.009194 0.272145  
 6 -1.21243 -1.05078 1.07485  
 6 -0.058282 -1.68902 0.297193  
 7 0.872812 -0.667809 -0.193247  
 6 0.233698 0.382578 -0.992048  
 6 -0.928608 1.01551 -0.214793  
 6 2.20291 -0.77912 0.116622  
 6 3.17723 0.273595 -0.464094  
 8 2.63023 -1.66754 0.852789  
 6 3.11716 1.51622 0.441806  
 6 3.83543 1.44384 1.77195  
 8 2.4876 2.50223 0.099116  
 6 4.59353 -0.320436 -0.59487  
 6 4.6889 -1.38822 -1.68845  
 1 -5.86307 -1.64271 0.856376  
 1 -6.93001 0.2122 -0.495499  
 1 -5.35982 1.95834 -1.44044  
 1 -1.96325 -1.79671 1.33054  
 1 -0.824212 -0.611786 2.00608

1 -0.461795 -2.24147 -0.56267  
1 0.504692 -2.37668 0.927428  
1 -0.147907 -0.057465 -1.92421  
1 0.946629 1.16775 -1.23359  
1 -1.48111 1.703 -0.853085  
1 -0.51886 1.5806 0.635002  
1 2.83839 0.60163 -1.44984  
1 3.53573 2.28708 2.39534  
1 4.91913 1.48369 1.61326  
1 3.62274 0.493062 2.27114  
1 4.88715 -0.756653 0.363126  
1 5.29183 0.496072 -0.817607  
1 5.71278 -1.76564 -1.77165  
1 4.40199 -0.987569 -2.66741  
1 4.03868 -2.23696 -1.45908

#### Lowest energy ester compound B

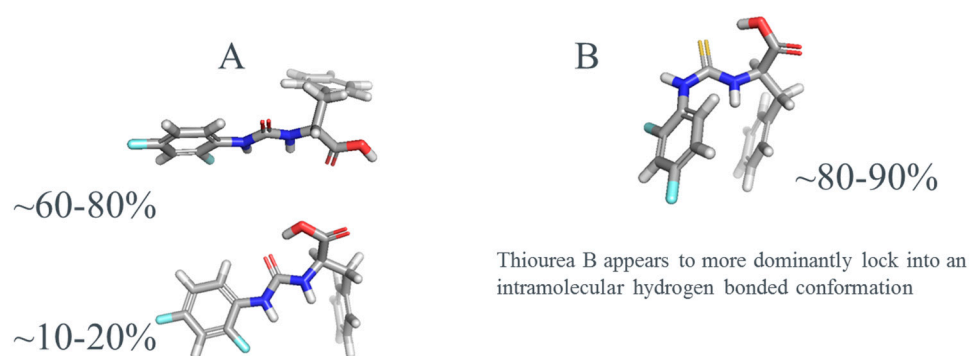
B3LYP/6-31G\*\* Electronic energy = -1029.591846 hartrees

6 5.72826 0.162163 0.786964  
6 6.24742 -0.625839 -0.239067  
6 5.30449 -1.18134 -1.10257  
7 3.9936 -0.985251 -0.977503  
6 3.60082 -0.198666 0.0508  
7 4.42589 0.38514 0.950203  
7 2.25758 0.035755 0.185709  
6 1.70378 0.797508 1.30049  
6 0.685592 1.82033 0.790153  
7 -0.326713 1.17193 -0.048243  
6 0.240177 0.419989 -1.17069  
6 1.26356 -0.605468 -0.667304  
6 -1.6526 1.35524 0.252738  
6 -2.70663 0.676432 -0.664265  
8 -2.01565 2.02457 1.21446  
6 -2.75106 -0.817321 -0.348132  
8 -3.48742 -1.0714 0.747277  
8 -2.17291 -1.67294 -0.992147  
6 -4.07746 1.36112 -0.511511  
6 -4.10776 2.7683 -1.11385  
6 -3.58769 -2.45688 1.16573  
6 -4.70631 -3.17577 0.428999  
1 6.38621 0.636464 1.51439  
1 7.31034 -0.798462 -0.354724  
1 5.61283 -1.81506 -1.93345

1 1.20714 0.112496 2.00443  
 1 2.52065 1.2938 1.82205  
 1 0.171233 2.30606 1.61865  
 1 1.20463 2.58547 0.196084  
 1 -0.537724 -0.114256 -1.71071  
 1 0.736238 1.1228 -1.85546  
 1 0.73109 -1.38489 -0.102853  
 1 1.77459 -1.07583 -1.50567  
 1 -2.38293 0.745194 -1.7063  
 1 -4.32466 1.40166 0.550729  
 1 -4.83137 0.733229 -1.00085  
 1 -5.104 3.20931 -1.00965  
 1 -3.86246 2.755 -2.18247  
 1 -3.39793 3.42499 -0.60416  
 1 -2.62487 -2.9448 0.998008  
 1 -3.78524 -2.39741 2.2381  
 1 -4.81327 -4.19267 0.820615  
 1 -5.65849 -2.65457 0.563233  
 1 -4.48421 -3.24207 -0.638737

### 7. General Differences in Preferred Conformations for Urea and Thiourea Analogs Shown in Figure 4f from manuscript

Percentages are *in vacuo* Boltzmann population, where ranges cover the estimates of percent contribution determined from electronic (E) or free energies (G).



**Figure S3.** Preferred Conformations for Urea and Thiourea Analogs.

Coordinates for lowest energy conformer of each species. All conformations for each compound available upon request.

Lowest energy urea compound A

B3LYP/6-31G\*\* Electronic energy = -1153.051329 hartrees

6 4.98933 0.849111 0.823067

6 3.63645 0.634741 1.01566



6 2.83144 -0.080689 0.117368  
6 3.44752 -0.598797 -1.03077  
6 4.81143 -0.397518 -1.2518  
6 5.56111 0.31845 -0.329  
7 1.47714 -0.217394 0.456271  
6 0.484543 -0.83589 -0.285364  
7 -0.756068 -0.77676 0.310066  
6 -1.85919 -1.51723 -0.269204  
6 -2.62683 -0.718725 -1.36376  
8 0.665962 -1.36615 -1.37809  
9 6.87944 0.511162 -0.545105  
9 3.03635 1.13743 2.12817  
6 -2.76441 -1.95509 0.871409  
8 -3.79711 -2.70584 0.438866  
8 -2.59168 -1.67728 2.03937  
6 -3.3067 0.537752 -0.867251  
6 -4.65714 0.520912 -0.490148  
6 -5.28246 1.6732 -0.012256  
6 -4.56534 2.86515 0.095676  
6 -3.22175 2.89725 -0.281695  
6 -2.59979 1.74392 -0.76002  
1 5.57234 1.40852 1.54398  
1 2.8454 -1.15144 -1.73746  
1 5.29305 -0.794941 -2.1379  
1 1.216 0.243988 1.31565  
1 -0.851893 -0.582712 1.29941  
1 -1.46768 -2.42064 -0.753601  
1 -1.88355 -0.480863 -2.13  
1 -3.35899 -1.39404 -1.81627  
1 -4.32105 -2.93343 1.22585  
1 -5.2227 -0.403087 -0.57756  
1 -6.33101 1.64077 0.269951  
1 -5.05123 3.76397 0.463898  
1 -2.65835 3.82329 -0.209774  
1 -1.55672 1.7773 -1.06072

#### Lowest energy thiourea compound B

B3LYP/6-31G\*\* Electronic energy = -1475.997487 hartrees

6 -3.9684 -0.204968 0.339802  
6 -2.83303 -0.632233 1.00967  
6 -1.74929 -1.23303 0.353529  
6 -1.84691 -1.42044 -1.03283  
6 -2.96478 -0.977155 -1.73945

6 -4.00626 -0.377911 -1.04043  
7 -0.652924 -1.68002 1.126  
6 0.684684 -1.4666 0.925007  
7 1.03851 -0.752298 -0.163949  
6 2.39862 -0.283466 -0.461456  
6 2.34665 1.05645 -1.21409  
16 1.79458 -2.11513 2.03381  
9 -5.09231 0.042242 -1.71148  
9 -2.76366 -0.48917 2.34604  
6 3.16462 -1.3449 -1.29375  
8 3.42457 -2.49554 -0.663366  
8 3.50519 -1.15082 -2.43782  
6 1.58991 2.14337 -0.48011  
6 0.3637 2.61375 -0.966735  
6 -0.346177 3.60717 -0.287977  
6 0.163941 4.14646 0.891987  
6 1.3883 3.68947 1.38606  
6 2.09339 2.69866 0.705465  
1 -4.78964 0.25536 0.875096  
1 -1.04957 -1.93705 -1.55624  
1 -3.04493 -1.11456 -2.8113  
1 -0.858562 -2.0897 2.02728  
1 0.296808 -0.295448 -0.680909  
1 2.91315 -0.164456 0.498927  
1 3.38283 1.3578 -1.39576  
1 1.91474 0.884537 -2.20515  
1 3.08119 -2.47775 0.263882  
1 -0.03309 2.21039 -1.89594  
1 -1.29319 3.96061 -0.685531  
1 -0.383802 4.92019 1.42155  
1 1.79584 4.10823 2.30153  
1 3.04773 2.35549 1.09754