

Sample File: NCTRER, truncated to 3 records:

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20 22 0 0 0 0 0 0 0 0 0 1 V2000
  5.3203 -2.3043 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  3.9874 -2.3043 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  3.3209 -3.4565 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  1.9880 -3.4565 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  1.3329 -2.3043 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  1.9880 -1.1522 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  3.3209 -1.1522 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  3.9874 0.0000 0.0000 O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  0.0000 -2.3043 0.0000 O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  3.9874 -4.6086 0.0000 O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  5.3203 -4.6086 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  5.9754 -3.4565 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  7.3083 -3.4565 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  7.9748 -2.3043 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  9.3077 -2.3043 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  9.9628 -3.4565 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  9.3077 -4.6086 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  7.9748 -4.6086 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  11.2957 -3.4565 0.0000 O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  5.9754 -1.1522 0.0000 O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  1 2 1 0 0 0 0
  1 12 1 0 0 0 0
  1 20 2 0 0 0 0
  2 3 2 0 0 0 0
  2 7 1 0 0 0 0
  3 4 1 0 0 0 0
  3 10 1 0 0 0 0
  4 5 2 0 0 0 0
  5 6 1 0 0 0 0
  5 9 1 0 0 0 0
  6 7 2 0 0 0 0
  7 8 1 0 0 0 0
  10 11 1 0 0 0 0
  11 12 2 0 0 0 0
  12 13 1 0 0 0 0
  13 14 1 0 0 0 0
  13 18 2 0 0 0 0
  14 15 2 0 0 0 0
  15 16 1 0 0 0 0
  16 17 2 0 0 0 0
  16 19 1 0 0 0 0
  17 18 1 0 0 0 0
M END
> <DSSTox_RID>
22308

> <DSSTox_CID>
2308

> <DSSTox_Generic_SID>
22308
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> <DSSTox_FileID>
1_NCTRER_v4a

> <STRUCTURE_Formula>
C15H10O5

> <STRUCTURE_MolecularWeight>
270.2369

> <STRUCTURE_ChemicalType>
defined organic

> <STRUCTURE_TestForm_DefinedOrganic>
parent

> <STRUCTURE_Shown>
tested chemical

> <TestSubstance_ChemicalName>
genistein

> <TestSubstance_CASRN>
446-72-0

> <TestSubstance_Description>
single chemical compound

> <ChemicalNote>
blank

> <STRUCTURE_ChemicalName_IUPAC>
5,7-dihydroxy-3-(4-hydroxyphenyl)-4H-chromen-4-one

> <STRUCTURE_SMILES>
O=C(C(C(C=C3)=CC=C3O)=CO2)C1=C2C=C(O)C=C1O

> <STRUCTURE_Parent_SMILES>
O=C(C(C(C=C3)=CC=C3O)=CO2)C1=C2C=C(O)C=C1O

> <STRUCTURE_InChI>
InChI=1/C15H10O5/c16-9-3-1-8(2-4-9)11-7-20-13-6-10(17)5-12(18)14(13)15(11)19/h1-7,16-18H

> <StudyType>
Receptor Binding

> <Endpoint>
Estrogen Receptor Relative Binding Affinity

> <Species>
rat

> <ChemClass_ERB>
Phytoestrogens Isoflavones

> <ER_RBA>
0.436

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> <LOG_ER_RBA>
-0.36

> <ActivityCategory_ER_RBA>
active medium

> <Mean_ER_RBA_ChemClass>
0.019

> <ActivityCategory_Rationale_ChemClass_ERB>
Isoflavones are relatively weak binders, RBA optimized when OH groups in 7,4'
positions approx correspond to 4,4' OH positions in DES, a more frequent
coincidence than in flavones and flavanones.

> <F1_Ring>
1

> <F2_AromaticRing>
1

> <F3_PhenolicRing>
1

> <F4_Heteroatom>
0

> <F5_Phenol3nPhenyl>
1

> <F6_OtherKeyFeatures>
0

> <LOGP>
2.84

> <Note_NCTRER>
blank

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18 20 0 0 1 0 0 0 0 0 0 1 v2000
7.9737 -2.3040 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
7.3073 -3.4560 0.0000 O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5.9746 -3.4560 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5.3196 -2.3040 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5.9746 -1.1520 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
7.3073 -1.1520 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
7.9737 0.0000 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
9.3064 0.0000 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
9.9615 -1.1520 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
9.3064 -2.3040 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
11.2942 -1.1520 0.0000 O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
3.9868 -2.3040 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
3.3205 -3.4560 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

```

1.9878	-3.4560	0.0000	C	0	0	0	0	0	0	0	0	0	0	0	0
1.3327	-2.3040	0.0000	C	0	0	0	0	0	0	0	0	0	0	0	0
1.9878	-1.1520	0.0000	C	0	0	0	0	0	0	0	0	0	0	0	0
3.3205	-1.1520	0.0000	C	0	0	0	0	0	0	0	0	0	0	0	0
0.0000	-2.3040	0.0000	O	0	0	0	0	0	0	0	0	0	0	0	0

```

1 2 1 0 0 0 0
1 6 2 0 0 0 0
1 10 1 0 0 0 0
2 3 1 0 0 0 0
3 4 1 0 0 0 0
4 5 1 0 0 0 0
4 12 1 6 0 0 0
5 6 1 0 0 0 0
6 7 1 0 0 0 0
7 8 2 0 0 0 0
8 9 1 0 0 0 0
9 10 2 0 0 0 0
9 11 1 0 0 0 0
12 13 2 0 0 0 0
12 17 1 0 0 0 0
13 14 1 0 0 0 0
14 15 2 0 0 0 0
15 16 1 0 0 0 0
15 18 1 0 0 0 0
16 17 2 0 0 0 0
M END
> <DSSTox_RID>
22309

> <DSSTox_CID>
2309

> <DSSTox_Generic_SID>
22309

> <DSSTox_FileID>
2_NCTRER_v4a

> <STRUCTURE_Formula>
C15H14O3

> <STRUCTURE_MolecularWeight>
242.2699

> <STRUCTURE_ChemicalType>
defined organic

> <STRUCTURE_TestForm_DefinedOrganic>
parent

> <STRUCTURE_Shown>
tested chemical

> <TestSubstance_ChemicalName>
equol

> <TestSubstance_CASRN>

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531-95-3

> <TestSubstance_Description>
single chemical compound

> <ChemicalNote>
stereochem

> <STRUCTURE_ChemicalName_IUPAC>
(3S)-3-(4-hydroxyphenyl)chroman-7-ol

> <STRUCTURE_SMILES>
Oc1ccc(cc1)[C@@H]2Cc3ccc(O)cc3OC2

> <STRUCTURE_Parent_SMILES>
Oc1ccc(cc1)[C@@H]2Cc3ccc(O)cc3OC2

> <STRUCTURE_InChI>
InChI=1/C15H14O3/c16-13-4-1-10(2-5-13)12-7-11-3-6-14(17)8-15(11)18-9-12/h1-6,8,12,16-17H,7,9H2/t12-/m1/s1

> <StudyType>
Receptor Binding

> <Endpoint>
Estrogen Receptor Relative Binding Affinity

> <Species>
rat

> <ChemClass_ERB>
Phytoestrogens Isoflavones

> <ER_RBA>
0.151

> <LOG_ER_RBA>
-0.82

> <ActivityCategory_ER_RBA>
active medium

> <Mean_ER_RBA_ChemClass>
0.019

> <ActivityCategory_Rationale_ChemClass_ERB>
Isoflavones are relatively weak binders, RBA optimized when OH groups in 7,4' positions approx correspond to 4,4' OH positions in DES, a more frequent coincidence than in flavones and flavanones.

> <F1_Ring>
1

> <F2_AromaticRing>
1

> <F3_PhenolicRing>

1

> <F4_Heteroatom>

0

> <F5_Phenol3nPhenyl>

1

> <F6_OtherKeyFeatures>

0

> <LOGP>

3.67

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```
19 21 0 0 0 0 0 0 0 0 0 1 V2000
  5.3205 -2.3044 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  5.9756 -1.1522 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  7.3086 -1.1522 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  7.9751 0.0000 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  9.3080 0.0000 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  9.9632 -1.1522 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  9.3080 -2.3044 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  7.9751 -2.3044 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  7.3086 -3.4566 0.0000 O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  5.9756 -3.4566 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 11.2961 -1.1522 0.0000 O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  5.3205 0.0000 0.0000 O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  3.9875 -2.3044 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  3.3211 -3.4566 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  1.9881 -3.4566 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  1.3329 -2.3044 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  1.9881 -1.1522 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  3.3211 -1.1522 0.0000 C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  0.0000 -2.3044 0.0000 O 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
  1 2 1 0 0 0 0
  1 10 2 0 0 0 0
  1 13 1 0 0 0 0
  2 3 1 0 0 0 0
  2 12 2 0 0 0 0
  3 4 1 0 0 0 0
  3 8 2 0 0 0 0
  4 5 2 0 0 0 0
  5 6 1 0 0 0 0
  6 7 2 0 0 0 0
  6 11 1 0 0 0 0
  7 8 1 0 0 0 0
  8 9 1 0 0 0 0
  9 10 1 0 0 0 0
 13 14 2 0 0 0 0
 13 18 1 0 0 0 0
 14 15 1 0 0 0 0
 15 16 2 0 0 0 0
 16 17 1 0 0 0 0
```

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16 19 1 0 0 0 0
17 18 2 0 0 0 0
M END
> <DSSTox_RID>
22310

> <DSSTox_CID>
2310

> <DSSTox_Generic_SID>
22310

> <DSSTox_FileID>
3_NCTRER_v4a

> <STRUCTURE_Formula>
C15H10O4

> <STRUCTURE_MolecularWeight>
254.2375

> <STRUCTURE_ChemicalType>
defined organic

> <STRUCTURE_TestForm_DefinedOrganic>
parent

> <STRUCTURE_Shown>
tested chemical

> <TestSubstance_ChemicalName>
daidzein

> <TestSubstance_CASRN>
486-66-8

> <TestSubstance_Description>
single chemical compound

> <STRUCTURE_ChemicalName_IUPAC>
7-hydroxy-3-(4-hydroxyphenyl)-4H-chromen-4-one

> <STRUCTURE_SMILES>
O=C1C(C3=CC=C(O)C=C3)=COC2=C1C=CC(O)=C2

> <STRUCTURE_Parent_SMILES>
O=C1C(C3=CC=C(O)C=C3)=COC2=C1C=CC(O)=C2

> <STRUCTURE_InChI>
InChI=1/C15H10O4/c16-10-3-1-9(2-4-10)13-8-19-14-7-11(17)5-6-12(14)15(13)18/h1-8,16-17H

> <StudyType>
Receptor Binding

> <Endpoint>
Estrogen Receptor Relative Binding Affinity
```

```
> <Species>
rat

> <ChemClass_ERB>
Phytoestrogens Isoflavones

> <ER_RBA>
0.022

> <LOG_ER_RBA>
-1.65

> <ActivityCategory_ER_RBA>
active medium

> <Mean_ER_RBA_ChemClass>
0.019

> <ActivityCategory_Rationale_ChemClass_ERB>
Isoflavones are relatively weak binders, RBA optimized when OH groups in 7,4'
positions approx correspond to 4,4' OH positions in DES, a more frequent
coincidence than in flavones and flavanones.

> <F1_Ring>
1

> <F2_AromaticRing>
1

> <F3_PhenolicRing>
1

> <F4_Heteroatom>
0

> <F5_Phenol3nPhenyl>
1

> <F6_OtherKeyFeatures>
0

> <LOGP>
2.55

$$$$
```