

Dr. Duke's Phytochemical and Ethnobotanical Databases
List of Chemicals for Aldose-Reductase-Inhibitor

Chemical	Dosage
(+)-CORYDALINE	50 uM (weak activity)
(+)-GLAUCINE	50 uM
(-)-DANSHEXINKUN	IC50=0.87 uM
(-)-EPIGALLOCATECHIN	--
(-)-EPIGALLOCATECHIN-GALLATE	--
(-)-STYLOPINE	50 uM
(-)-TETRAHYDROCOLUMBAMINE	50 uM (weak activity)
1,2,3,6-TETRA-O-GALLYOL-BETA-D-GLUCOSE	IC50=0.63 uM
1,3,6-TRIHYDROXY-2,7-DIMETHOXY-XANTHONE	0.1 uM
1,6,7-TRIHYDROXY-2,3-DIMETHOXY-XANTHONE	--
1-HYDROXY-3,6,7-TRIMETHOXY-XANTHONE	0.1 uM
1-METHOXY-2,3-METHYLENEDIOXY-XANTHONE	--
13',118-BIAPIGENIN	IC25=10 uM
2'O-ACETYLACETOSIDE	IC50=0.19 uM
2-METHYL-5-(PENTADEC-CIS-8-ENYL)-RESORCINOL	IC50=300.7 uM
2-METHYL-5-(PENTADECA-CIS-8-CIS-11-DIENYL)-RESORCINOL	IC50=118 uM
2-PHENYL-ETHYL-O-BETA-D-XYLOPYRANOSYL-(1,6)-BETA-D-GLUCOSIDE	--
28-HYDROXY-FRIEDELANE-1,3-DIONE	IC50=12 ug/ml
3',4',5,6,7-PENTAACETOXY-8-METHOXY-FLAVONE	10 uM (strong activity)
3',4',6-TRIHYDROXY-5,7,8-TRIMETHOXY-FLAVONE	10 uM (strong activity)
3,3',4-TRI-O-METHYL-ELLAGIC-ACID	IC50=0.08 uM
3,4-DIMETHOXYCINNAMIC-ACID	4 ug/ml (weak activity)
3-(PENTADECA-CIS-8-CIS-11,14-TRIENYL)-PHENOL	IC50=180.9 uM
3-(PENTADECA-CIS-8-CIS-12-DIENYL)-PHENOL	IC50=332.8 uM
3-ACETYL-3',4'-DIHYDROXY-5,6,7-TRIMETHOXY-FLAVONE	10 uM
3-HYDROXY-6-METHOXY-COUMARIN	10 uM (weak activity)
3-HYDROXY-COUMARIN	10 uM (weak activity)

Chemical	Dosage
4',5,6,7-TETRAHYDROXY-3',8-DIMETHOXY-FLAVONE	10 uM
4',5,7-TRIHIDROXY-6,8-DIMETHOXY-FLAVONE	10 uM
4',6-DIHYDROXY-3',5,7,8-TETRAMETHOXY-FLAVONE	10 uM
4',6-DIHYDROXY-5,7,8-TRIMETHOXY-FLAVONE	10 uM
4'-HYDROXY-3',5,6,7,8-PENTAMETHOXY-FLAVONE	10 uM
4'-HYDROXY-5,6,7,8-TETRAMETHOXY-FLAVONE	10 uM
4-(ALPHA-RHAMNOPYRANOSYL)ELLAGIC-ACID	IC50=4.1 x 10(-8) M
4-HYDROXY-6,7-METHYLENEDIOXY-COUMARIN	10 uM
4-HYDROXYCOUMARIN	IC50=0.53 ug/ml cow
4-METHOXYCOUMARIN	10 ug/ml cow
4-O-METHYLELLAGIC-ACID	--
5,6,7-TRIHIDROXY-8-METHOXY-FLAVONE	10 uM
5,6-DIHYDROXY-7,8-DIMETHOXY-FLAVONE	10 uM
5,7-DIMETHOXYCOUMARIN	10 ug/ml cow
5-(PENTADEC-CIS-8-ENYL)-RESORCINOL	IC50=28.2 uM
5-(PENTADECA-CIS-8-CIS-11,14-TRIENYL)-RESORCINOL	IC50=57.2 uM
5-(PENTADECA-CIS-8-CIS-11-DIENYL)-RESORCINOL	IC50=28.4 uM
5-PENTADECYL-RESORCINOL	IC50=312 uM
6,3'4'-TRIHIDROXY-5,7,8-TRIMETHOXYFLAVONE	IC73=0.1uM
6,7-DIACETOXYCOUMARIN	10 ug/ml cow, 14% inhibition
6,8-DI-(GAMMA-GAMMA-DIMETHYL-ALLYL)-GENISTEIN	10 uM
6-(PENTADEC-CIS-8-ENYL)-SALICYLIC-ACID	IC50=40.4 uM
6-(PENTADECA-CIS-8-CIS-11,14-TRIENYL)-SALICYLIC-ACID	IC50=20.4 uM
6-(PENTADECYL)-SALICYLIC-ACID	IC50=100.4 uM
6-(PENTADECYL-CIS-8-CIS-11-DIENYL)-SALICYLIC-ACID	IC50=49.3 uM
6-HYDROXY-5,7,8-TRIMETHOXY-FLAVONE	10 uM
6-HYDROXY-LUTEOLIN	IC53=1 uM

Chemical	Dosage
6-HYDROXY-LUTEOLIN	IC87=10 uM
6-HYDROXYKAEMPFEROL-3,6-DIMETHYL-ETHER	--
6-O-TRANS-FERULOYL-AJUGOL	10 uM, 59% inhibition
7-ACETOXY-6-METHOXYCOUMARIN	10 ug/ml cow (weak activity, 11% inhibition)
7-METHYL-AXILLARIN	10 uM
7-METHYLCAPILLARISIN	10 uM rat
7-O-ACETYL-8-EPI-LOGANIC-ACID	--
8,9-DIHYDROXY-3-METHOXYCOUMESTAN	10 uM
8-METHOXY-CIRSILINEOL	10 uM
ACACETIN	--
ACACETIN-7-O-(6"-ALPHA-L-RHAMNOPYRANOSYL)-BETA-D-GLUCOPYRANOSIDE	IC50=4.7 uM rat
ACARBOSE	0.4 g/kg diet rat
ACETOSIDE	IC50=0.4 ppm
ACETYL-TRISULFATE-QUERCETIN	IC50=0.1 uM
ACTEOSIDE	IC50=0.39 uM
AESCULETIN	IC50=0.74 ug/ml cow
AESCULIN	10 ug/ml cow
ALLO-CYMENE	100 ug/ml (weak activity)
ALLOCRYPTOPINE	IC50=27.9 uM rat
ALPHA-TERPINENE	100 ug/ml
ALPHA-TERPINEOL	100 ug/ml
AMENTOFLAVONE	IC25=10 uM
APIIN	--
ARENARIOSIDE	IC50=2.38 uM
ASCORBIC-ACID	--
ASTILBIN	60 uM pig
ASTRAGALIN	IC62=10 uM

Chemical	Dosage
ASTRAGALIN	IC30=1 uM
AURANTIOBTUSIN	IC50=13.6 uM
AVICULARIN	IC32=1 uM
AVICULARIN	IC84=10 uM
AXILLARIN	IC80=0.1 uM
AXILLARIN	10 uM
BAICALEIN	IC50=0.98 rbt
BAICALEIN	IC62=10 uM
BAICALEIN	IC50=0.98 ppm
BAICALIN	IC50=13.6 uM rat
BAICALIN	IC42=10 uM
BERBERINE-CHLORIDE	IC100=14 nM
BERBERINE-IODIDE	IC100=33 nM
BERBERINE-SULFATE	IC100=13.5 nM
BRAZILIN	ED50=100 uM
BREVIFOLIN-CARBOXYLIC-ACID	IC50=2.4 uM
CAFFEIC-ACID	4 ug/ml (weak activity)
CAPILLARISIN	10 uM rat
CAPILLARISIN	IC50=0.22 ug/ml cow
CARYOLANE-1,9-BETA-DIOL	IC50=45 uM rat (weak activity)
CARYOPHYLLENE	--
CHLOROGENIC-ACID	IC50=1.8 uM rat (strong activity)
CHRYSIN-5,7-DIHYDROXYFLAVONE	--
CHRYSOERIOLOL	IC31=10 uM
CHRYSOSPLENOL	IC28=10 uM
CHRYSOSPLENOSIDE-A	IC15=10 uM
CHRYSOSPLENOSIDE-D	IC27=10 uM

Chemical	Dosage
CINNAMIC-ACID	4 ug/ml (weak activity)
CIRSILINEOL	10 uM
CIRSILINEOL-4'-O-BETA-D-GLUCOSIDE	10 uM
CIRSILIOL	10 uM
CIRSILIOL-4'-O-BETA-D-GLUCOSIDE	10 uM
CIRSIMARITIN	IC50=1.6 ug/ml cow
CIRSIMARITIN	10 uM
CIRSIMARITIN-4'-O-BETA-D-GLUCOSIDE	10 uM
CITRININ	IC50=10 uM
CONDURITOL-A	10 mM
COSMOSIIN	IC40=1 uM
COSMOSIIN	IC99=10 uM
COUMARIN	10 ug/ml cow (weak activity, 11% inhibition)
CRYPTOTANSHINONE	IC50=10 uM rat
CYNAROSIDE	IC50=0.99 uM rat (strong activity)
DANSHENOL-A	IC50=0.1 uM rat
DANSHENOL-B	IC50=1.75 uM rat
DAUCOSTEROL	0.1 mM/l rat (weak activity, 31.9% inhibition)
DEHYDROCORYDALINE	10 uM
DELTA-CADINENE	--
DEMETHYLMUSSAENOSIDE	IC50=61.4 uM rbt
DESMANTHIN-1	IC50=0.082 uM (strong activity)
DIACERYLCIRSIMARITIN	IC35=10 uM
DIHYDROTANSHINONE	IC50=1.19 uM rat
DIHYDROTANSHINONE-I	IC50=1.19 uM
DIOSMETIN	IC17=10 uM
DISOMETIN	IC17=10 uM

Chemical	Dosage
DL-TETRAHYDROPALMATINE	50 uM
DOSMETIN	IC17=10uM
ECHINATIN	1 ug/mL
ELLAGIC-ACID	IC50=0.2 uM
ELLAGIC-ACID	IC50=0.2 ug/ml (strong activity)
EMBININ	IC13=10 uM
EMODIN	IC50=15.9 uM
ETHYL-BREVIFOLIN-CARBOXYLATE	IC50=5 uM
EUGENOL-BETA-D-GLUCOSIDE	0.1 mM/l rat (weak activity, 35.2% inhibition)
EUPATILIN	IC50=25 uM rat (weak activity)
FLAVOCANNABISIDE	--
FLAVOSATIVASIDE	--
FORSYTHOSIDE-B	IC50=4.83 uM
FRAXIN	10 ug/ml cow
FRAXINOL	10 ug/ml cow
GAMMA-TERPINENE	100 ug/ml
GENISTEIN	IC50=10 uM
GOSSYPETIN-8-GLUCOSIDE	--
GOSSYPOL	--
GUAIJAVERIN	IC50=0.18 uM
HAEMATOXYLIN	--
HERNIARIN	10 ug/ml cow (weak activity)
HISPIDULOSIDE	ED50=1-10 uM
HYMENOXIN	10 uM
HYPERIN	--
HYPEROSIDE	--
INDOLE	--

Chemical	Dosage
IRIDINE	IC21=10uM
ISOCHLOROGENIC-ACID-A	4 ug/ml
ISOCHLOROGENIC-ACID-B	4 ug/ml
ISOFRAXIDIN	10 ug/ml cow (weak activity, 18% inhibition)
ISOLIQUIRITIGENIN	IC50=0.32 uM
ISOLIQUIRITIGENIN	0.1 ug/ml
ISOLIQUIRITIN	IC50=0.72 uM
ISOQUERCITRIN	--
ISOSCOPOLETIN	10 ug/ml cow (weak activity)
JIOCAROTENOSIDE-A-1	--
JIONOSIDE	IC50=0.51 uM
JUGLANIN	IC65=10 uM
KAEMPFEROL	100 uM
KAEMPFEROL-3-RHAMNOSIDE	IC43=1 uM
KAEMPFEROL-3-RHAMNOSIDE	IC85=10 uM
KAEMPFEROL=3=NEOHESPERIDOSIDE	IC30=10uM
KOLAVIRON	IC50= 5.4
KOLAVIRON	IC50=5.4
KUWANON-C	100 uM
LICORICIDIN	100 uM
LICURASIDE	IC50=0.56 uM
LINARIIN	IC18=10uM
LINARIN	IC20=10 uM
LONICERIN	IC56=1uM; IC92=10uM
LUTEOLIN	IC50=0.45 uM rat
LUTEOLIN	EC=3 ppm
LUTEOLIN-7-GLUCOSIDE	IC73=10 uM

Chemical	Dosage
LUTEOLIN-7-GLUCOSIDE	IC31=1 uM
LUTEOLIN-7-GLUCURONIDE	IC68=1 uM
LUTEOLIN-7-GLUCURONIDE	IC88=10 uM
LUTEOLIN-7-O-BETA-D-GLUCOPYRANOSIDURONIC-ACID	IC50=3.1 uM rat
MACROCARPAL-A	IC50=10 uM
MACROCARPAL-A	IC50=2 uM
MACROCARPAL-B	IC50=2.8 uM
MACROCARPAL-D	IC50=2 uM
MACROCARPAL-G	IC50=2.7 uM
MANDSHURIN	10 ug/ml cow
MANIFLAVONE	--
MATTEUORIENTATE-A	IC50=1 uM
MATTEUORIENTATE-B	IC50=1 uM
MATTEUORIENTATE-C	IC50=2.3 uM
MEARNSITRIN	IC50=1.4 uM
METHYL-ALPHA-D-GALACTOSIDE	0.1 mM/l rat (weak activity)
METHYL-SCUTELLAREIN	IC32=10uM
MORIN	100 uM
MYRCENE	100 ug/ml
MYRCIACITRIN-I	IC50=3.2 uM
MYRCIACITRIN-II	IC50=15 uM
MYRCIAPHENONE-B	IC50=29 uM
MYRICETIN-3-O-(4"-ACETYL)-ALPHA-FUCOSIDE	IC50=10.7 uM
MYRICETIN-3-O-(4"-ACETYL)-ALPHA-FUCOSIDE	IC50=17.9 uM
MYRICITRIN	IC50=3.8 uM
NARINGENIN	1 ug/mL
NARINGENIN	IC78=10 uM

Chemical	Dosage
NARINGENIN	100 uM
NARINGENIN	IC25=1 uM
NARINGIN	--
NELUMBOSIDE	IC32=1uM; IC64=10uM
NEOASTILBIN	60 uM pig
NEPETIN	ED50=1 uM
NEPETRIN	ED50=1-10 uM
NEROLIDOL	--
NEVADENSIN	10 uM
ORAPOSIDE	IC50=0.15 uM
OROXYLIN-A	IC50=52 uM rat
OXYAYANIN-A	IC27=10uM
P-COUMARIC-ACID	4 ug/ml (weak activity)
PECTOLINARIGENIN	IC25=10 uM
PECTOLINARIN	IC42=10 uM
PENTABROMOPROPEN-2-YL-DIBROMO-ACETATE	4 ug/ml
PENTABROMOPROPEN-2-YL-TRIBROMO-ACETATE	4 ug/ml
PERILLOSIDE-A	0.1 mM/l rat
PERILLOSIDE-A	0.1 mM/l hmn (weak activity)
PERILLOSIDE-B	0.1 mM/l rat
PERILLOSIDE-C	0.1 mM/l hmn (weak activity)
PERILLOSIDE-C	0.1 mM/l rat
PERILLOSIDE-D	0.1 mM/l rat
PROTOPINE	IC50=38.5 uM rat
PROTOPINE	50 uM
PRUNASIN	0.1 mM/l rat
PUERARIN	--

Chemical	Dosage
QUERCETAGETIN	IC29=1 uM
QUERCETAGETIN	IC71=10 uM
QUERCETIN	100 uM
QUERCETIN	IC50=0.84 ug/ml cow
QUERCETIN	4 ug/ml
QUERCETIN	IC50=0.344 uM
QUERCIMERITRIN	IC44=10 uM
QUERCIMERITRIN	IC20=1 uM
QUERCITRIN	IC50=2 uM
QUERCITRIN	0.1-100 uM
QUERCITRIN	IC50=64 uM rat
QUERCITRIN	IC55=0.1 uM
QUERCITRIN	IC55=0.15 uM
QUERCITRIN	0.5-4 ug/ml
QUERCITRYL-2'-ACETATE	IC87=0.1 uM
RESORCINOL	909.1 uM
REYNOUTRIN	IC71=10 uM
REYNOUTRIN	IC34=1 uM
RHAMNETIN	IC57=10 uM
RHAMNETIN	IC23=1 uM
RHAMNOCITRIN	10 ug/ml cow
RHOIFOLIN	IC32=10 uM
ROSMARINIC-ACID	--
RUTIN	4 ug/ml
RUTIN	100 uM
SALBOSTATIN	IC50=0.7 mM
SALFREDIN-A-4	--

Chemical	Dosage
SALFREDIN-C-2	--
SALICYLIC-ACID	724.6 uM
SALVIANOLIC-ACID-A	0.01 uM rat
SAMBUNIGRIN	0.1 mM/l rat (weak activity)
SANGGENONE-C	100 uM
SAPPANCHALCONE	0.1 uM
SCOPARONE	10 ug/ml cow
SCOPOLETIN	IC50=6.2 ug/ml cow
SCUTELLAREIN	IC56=10uM; IC10=1uM
SIDERITOFLAVONE	--
SIDEROXYLONAL-A	IC50=1.25 uM
SIDEROXYLONAL-B	IC50=2.47 uM
SKULLCAPFLAVONE-II	500 uM rat
SOPHORICOSIDE	IC18=10uM
SORBARIN	IC70=10uM; IC14=1uM
SPIRAEOSIDE	IC9=1 uM
SPIRAEOSIDE	IC51=10 uM
SUDACHIIN-A	10 uM
SUDACHITIN	10 uM
SUDACHITIN-7-O-BETA-D-GLUCOSIDE	10 uM
SUGIOL	--
TANNIC-ACID	IC50=1.8 ug/ml
TANSHINONE-I	IC50=4.8 uM rat
TANSHINONE-II-A	IC50=1.14 uM rat
TAXIFOLIN	60 uM pig
THERMORUBIN	IC50=0.006 uM cow
THIAZOCIN-A	IC50=0.455 uM

Chemical	Dosage
THIAZOCIN-B	IC50=0.220 uM
THYMONIN	10 uM
THYMUSIN	10 uM
TRIFOLIN	IC19=1 uM
TRIFOLIN	IC62=10 uM
UMBELLIFERONE	IC50=4.8 ug/ml cow
VANILLIC-ACID	100 uM/l
VERBASCOSIDE	IC50=0.39-15.1 uM
VITEXICARPIN	100 uM/l
VITEXIN	5 ug/ml
VITEXIN	IC15=10 uM
WARANGALONE	10 uM
WOGONIN	IC13=10uM
WOGONIN	IC50=48 uM rat
WOGONIN-7-O-GLUCURONIDE	IC50=40 uM rat
WOGONIN-7-O-GLUCURONIDE-METHYL-ESTER	IC50=39 uM rat
XANTHOMICROL	10 uM