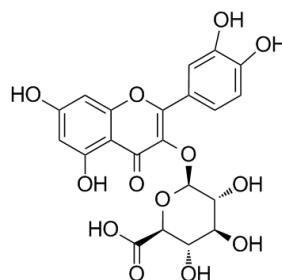


Product Name	: Miquelianin
Synonyms	: Quercetin 3-O-glucuronide, Quercetin 3-glucuronide
Cat No.	: M22423
CAS Number	: 22688-79-5
Molecular Formula	: C ₂₁ H ₁₅ O ₁₃
Formula Weight	: 478.36
Chemical Name	: —



Description : Quercetin-3-O-glucuronide is a potent stilbene oxidase inhibitor, it has antioxidant, anti-atherogenic, and anti-inflammatory activities. In vitro studies indicate that miquelianin is able to reach the central nervous system from the small intestine. Miquelianin shows an antioxidant effect in human plasma. At 50 μ M, miquelianin suppresses the consumption of the three antioxidants lycopene, β -carotene, and α -tocopherol significantly. Miquelianin significantly reduces the generation of β -amyloid (A β) peptides by primary neuron cultures generated from the Tg2576 AD mouse model. It is also capable of interfering with the initial protein-protein interaction of A β 1–40 and A β 1–42. Treatment with 0.1 μ M miquelianin suppresses ROS generation, cAMP and RAS activation, phosphorylation of ERK1/2 and the expression of HMOX1, MMP2, and MMP9 genes. Miquelianin suppresses invasion of MDA-MB-231 breast cancer cells and MMP-9 induction and inhibits the binding of [3H]-NA to b2-AR. Miquelianin treatment, compared to vehicle-control treatment, significantly improves AD-type deficits in hippocampal formation basal synaptic transmission and long-term potentiation.

Pathway	: Others
Target	: Other Targets
Receptor	: stilbene oxidase
Solubility	: DMSO:30 mg/mL (62.71 mM)
SMILES	: <chem>O[C@H]1[C@H](Oc2c(oc3cc(O)cc(O)c3c2=O)-c2ccc(O)c(O)c2)O[C@@H]([C@@H](O)[C@@H]1O)C(=O)O</chem>
Storage	: (-20°C)
Stability	: ≥ 2 years
Reference	:

1. Terao J, et al. Protection by quercetin and quercetin 3-O-beta-D-glucuronide of peroxynitrite-induced antioxidant consumption in human plasma low-density lipoprotein. Free Radic Res. 2001 Dec;35(6):925-31.