

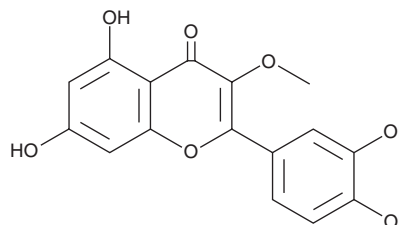
PRODUCT INFORMATION



3-O-methyl Quercetin

Item No. 29333

CAS Registry No.: 1486-70-0
Formal Name: 2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-3-methoxy-4H-1-benzopyran-4-one
Synonyms: NSC 154016, Quercetin 3-methyl ether
MF: C₁₆H₁₂O₇
FW: 316.3
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

3-O-methyl Quercetin is supplied as a solid. A stock solution may be made by dissolving the 3-O-methyl quercetin in the solvent of choice, which should be purged with an inert gas. 3-O-methyl Quercetin is slightly soluble in DMSO.

Description

3-O-methyl Quercetin is a flavone that has been found in *C. balchaschensis* and has diverse biological activities.¹⁻⁴ It is an inhibitor of β -secretase ($IC_{50} = 6.5 \mu M$).¹ It scavenges DPPH (Item No. 14805) radicals and superoxide anions in cell-free assays (IC_{50} s = 14.17 and 17.39 μM , respectively), as well as inhibits lipid peroxidation and hydrogen peroxide-induced neuronal cell death in primary rat cortical cells (IC_{50} s = 19 and 3.5 μM , respectively).² 3-O-methyl Quercetin inhibits poliovirus RNA synthesis in infected HeLa cells when used at concentrations of 2 and 20 $\mu g/ml$.³ It also inhibits LPS-induced nitric oxide (NO) production in BV-2 microglia ($IC_{50} = 3.8 \mu M$) and reduces LPS-induced increases in the levels of inducible nitric oxide synthase (iNOS) in BV-2 microglia.⁴

References

1. Zhumanova, K., Lee, G., Baiseitova, A., *et al.* Inhibitory mechanism of O-methylated quercetins, highly potent β -secretase inhibitors isolated from *Caragana balchaschensis* (Kom.) Pojark. *J. Ethnopharmacol.* **272**, 113936 (2021).
2. Kim, S.H., Kumar, C.N., Kim, H.J., *et al.* Glucose-containing flavones—their synthesis and antioxidant and neuroprotective activities. *Bioorg. Med. Chem. Lett.* **19(21)**, 6009-6013 (2009).
3. Castrillo, J.L. and Carrasco, L. Action of 3-methylquercetin on poliovirus RNA replication. *J. Virol.* **61(10)**, 3319-3321 (1987).
4. Kim, J.Y., Lim, H.J., and Ryu, J.-H. In vitro anti-inflammatory activity of 3-O-methyl-flavones isolated from *Siegesbeckia glabrescens*. *Bioorg. Med. Chem. Lett.* **18(4)**, 1511-1514 (2008).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM