

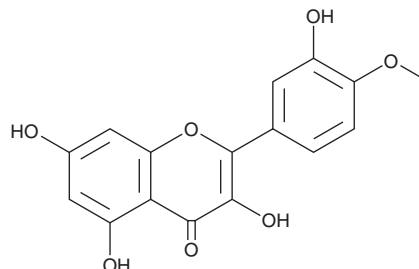
# PRODUCT INFORMATION



## 4'-O-methyl Quercetin

Item No. 22406

<b>CAS Registry No.:</b>	603-61-2
<b>Formal Name:</b>	3,5,7-trihydroxy-2-(3-hydroxy-4-methoxyphenyl)-4H-1-benzopyran-4-one
<b>Synonyms:</b>	4'-methoxy Quercetin, Tamarixetin
<b>MF:</b>	C <sub>16</sub> H <sub>12</sub> O <sub>7</sub>
<b>FW:</b>	316.3
<b>Purity:</b>	≥95%
<b>Supplied as:</b>	A solid
<b>Storage:</b>	-20°C
<b>Stability:</b>	≥4 years
<b>Item Origin:</b>	Synthetic



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

### Laboratory Procedures

4'-O-methyl Quercetin is supplied as a solid. A stock solution may be made by dissolving the 4'-O-methyl quercetin in the solvent of choice, which should be purged with an inert gas. 4'-O-methyl Quercetin is slightly soluble in methanol and DMSO.

### Description

4'-O-methyl Quercetin is a flavonoid isolated from *C. ordata* with anticancer and antiplasmodial activity.<sup>1-3</sup> 4'-O-methyl Quercetin is a major metabolite of quercetin (Item No. 10005169) that inhibits the viability of HL-60, U937, MOLT-3, Raji, K562, MCF-7, SK-MEL-1, and A549 human tumor cell lines with IC<sub>50</sub> values ranging from 5.5-24.1 μM.<sup>1</sup> It induces G<sub>2</sub>-M arrest and inhibits tubulin polymerization *in vitro* in a dose-dependent manner. 4'-O-methyl Quercetin inhibits breast cancer resistance protein (BCRP/ABCG2; IC<sub>50</sub> = 40 nM in a vesicular transport assay) with no cellular toxicity indicating potential for use in overcoming multidrug resistance in chemotherapy.<sup>2</sup> 4'-O-methyl Quercetin also reduces *in vitro* proliferation of chloroquine-resistant *P. falciparum* (IC<sub>50</sub> = 4.8 μM) and suppresses infection in mice (65-81% suppression at 2.5-5 mg/kg dose).<sup>3</sup>

### References

- Nicolini, F., Burmistrova, O., Marrero, M.T., *et al.* Induction of G<sub>2</sub>/M phase arrest and apoptosis by the flavonoid tamarixetin on human leukemia cells. *Mol. Carcinog.* **53**(12), 939-950 (2014).
- Tan, K.W., Li, Y., Paxton, J.W., *et al.* Identification of novel dietary phytochemicals inhibiting the efflux transporter breast cancer resistance protein (BCRP/ABCG2). *Food Chem.* **138**(4), 2267-2274 (2013).
- Ezenyi, I.C., Salawu, O.A., Kulkarni, R., *et al.* Antiplasmodial activity-aided isolation and identification of quercetin-4'-methyl ether in *Chromolaena odorata* leaf fraction with high activity against chloroquine-resistant *Plasmodium falciparum*. *Parasitol Res.* **113**(12), 4415-4422 (2014).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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