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## DATASHEET

Quercetin

### Product overview

|                          |                  |
|--------------------------|------------------|
| <b>Name</b>              | Quercetin        |
| <b>Cat No</b>            | HB0542           |
| <b>Biological action</b> | Inhibitor        |
| <b>Purity</b>            | >95%             |
| <b>Description</b>       | Enzyme inhibitor |

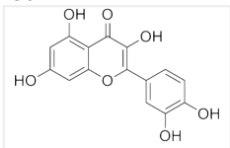
### Biological Data

|                               |                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Biological description</b> | Enzyme inhibitor. Inhibits tyrosine protein kinase, phosphodiesterase and phospholipase A2. Inhibits L-type voltage-gated calcium channel inward currents and increases voltage-gated K <sup>+</sup> channel currents. Shows antioxidant, neuroprotective, antidepressant, anxiolytic, antitumor, anti-asthma and vasodilator actions. |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Solubility & Handling

|                             |                                                                                                                               |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Storage instructions</b> | Room temperature                                                                                                              |
| <b>Solubility overview</b>  | Soluble in DMSO (100 mM)                                                                                                      |
| <b>Important</b>            | This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use. |

### Chemical Data

|                           |                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------|
| <b>Chemical name</b>      | 2-(3,4-Dihydroxyphenyl)-3,5,7-trihydroxy-4H-1-benzopyran-4-one                      |
| <b>Molecular Weight</b>   | 302.24                                                                              |
| <b>Chemical structure</b> |  |
| <b>Molecular Formula</b>  | C <sub>15</sub> H <sub>10</sub> O <sub>7</sub>                                      |
| <b>CAS Number</b>         | 117-39-5                                                                            |
| <b>PubChem identifier</b> | 5280343                                                                             |
| <b>SMILES</b>             | <chem>C1=CC(=C(C=C1C2=C(C(=O)C3=C(C=C(C=C3O2)O)O)O)O)O</chem>                       |
| <b>InChIKey</b>           | REFJWTPEDVJJIY-UHFFFAOYSA-N                                                         |
| <b>MDL number</b>         | MFCD00006828                                                                        |
| <b>Appearance</b>         | Yellow solid                                                                        |

### References

**Tyrosine protein kinase activity in the DMBA-induced rat mammary tumor: inhibition by quercetin.**

Levy J *et al* (1984) Biochem Biophys Res Commun 123(3)

**PubMedID** [6091650](#)

**Enhancement of voltage-gated K<sup>+</sup> channels and depression of voltage-gated Ca<sup>2+</sup> channels are involved in quercetin-induced vasorelaxation in rat coronary artery.**

Hou X *et al* (2014) *Planta Med* 80(6)

**PubMedID** [24710898](#)

**Quercetin acutely relaxes airway smooth muscle and potentiates  $\beta$ -agonist-induced relaxation via dual phosphodiesterase inhibition of PLC $\beta$  and PDE4.**

Townsend EA *et al* (2013) *Am J Physiol Lung Cell Mol Physiol* 305(5)

**PubMedID** [23873842](#)

**Quercetin as an inhibitor of snake venom secretory phospholipase A2.**

Cotrim CA *et al* (2011) *Chem Biol Interact* 189(1-2)

**PubMedID** [21056032](#)

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