

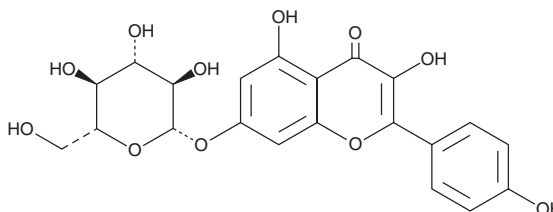
PRODUCT INFORMATION



Kaempferol 7-O-glucoside

Item No. 34347

CAS Registry No.: 16290-07-6
Formal Name: 7-(β -D-glucopyranosyloxy)-3,5-dihydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one
Synonym: Kaempferol 7-O- β -d-glucoside
MF: C₂₁H₂₀O₁₁
FW: 448.4
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 229, 256, 268, 368 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥ 4 years
Item Origin: Plant/*Ginkgo biloba*



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

Laboratory Procedures

Kaempferol 7-O-glucoside is supplied as a solid. A stock solution may be made by dissolving the kaempferol 7-O-glucoside in the solvent of choice, which should be purged with an inert gas. Kaempferol 7-O-glucoside is soluble in DMSO.

Description

Kaempferol 7-O-glucoside is a flavonol glycoside that has been found in *C. tricuspidata* and *A. pilosa* and has diverse biological activities.¹⁻⁴ It scavenges DPPH (Item No. 14805) radicals ($\text{IC}_{50} = 51.09 \mu\text{M}$) and inhibits acetylcholinesterase (AChE) activity ($\text{IC}_{50} = 63.94 \mu\text{M}$) in cell-free assays.^{1,2} Kaempferol 7-O-glucoside inhibits LPS-induced IL-1 β , IL-6, and TNF- α production in mouse RAW 264.7 macrophages in a concentration-dependent manner.³ It also inhibits the proliferation of human HeLa cervical, K562 leukemia, and A431 epidermoid carcinoma cells (EC_{50} s = 3.9, 3.9, and 14.8 $\mu\text{g/ml}$, respectively).⁴

References

1. Wang, J., Fang, X., Ge, L., *et al.* Antitumor, antioxidant and anti-inflammatory activities of kaempferol and its corresponding glycosides and the enzymatic preparation of kaempferol. *PLoS One* **13**(5), e0197563 (2018).
2. Nguyen, D.H., Seo, U.M., Zhao, B.T., *et al.* Ellagitannin and flavonoid constituents from *Agrimonia pilosa* leddeb. with their protein tyrosine phosphatase and acetylcholinesterase inhibitory activities. *Bioorg. Chem.* **72**, 293-300 (2017).
3. Lee, S.-B., Shin, J.-S., Han, H.-S., *et al.* Kaempferol 7-O- β -D-glucoside isolated from the leaves of *Cudrania tricuspidata* inhibits LPS-induced expression of pro-inflammatory mediators through inactivation of NF- κ B, AP-1, and JAK-STAT in RAW 264.7 macrophages. *Chem. Biol. Interact.* **284**, 101-111 (2018).
4. Xu, W., Liu, J., Li, C., *et al.* Kaempferol-7-O- β -D-glucoside (KG) isolated from *Smilax china* L. rhizome induces G₂/M phase arrest and apoptosis on HeLa cells in a p53-independent manner. *Cancer Lett.* **264**(2), 229-240 (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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