

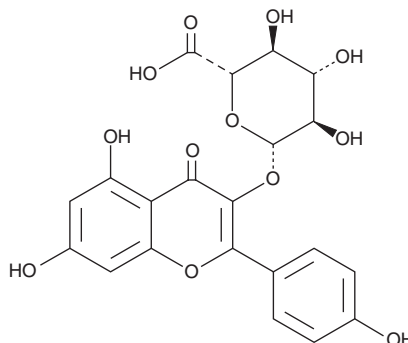
PRODUCT INFORMATION



Kaempferol 3-glucuronide

Item No. 34645

CAS Registry No.: 22688-78-4
Formal Name: 5,7-dihydroxy-2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-3-yl β-D-glucopyranosiduronic acid
Synonym: Kaempferol 3-O-β-glucuronide
MF: C₂₁H₁₈O₁₂
FW: 462.4
Purity: ≥95%
UV/Vis.: λ_{max}: 268, 354 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Styphnolobium japonicum*



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

Laboratory Procedures

Kaempferol 3-glucuronide is supplied as a solid. A stock solution may be made by dissolving the kaempferol 3-glucuronide in the solvent of choice, which should be purged with an inert gas. Kaempferol 3-glucuronide is soluble in the organic solvent DMSO.

Description

Kaempferol 3-glucuronide is a flavonol glycoside that has been found in *Fragaria* and an active metabolite of kaempferol (Item No. 11852) that has diverse biological activities.¹⁻⁴ It is formed from kaempferol primarily in the small intestine.² Kaempferol 3-glucuronide (0.1, 1, and 10 μM) induces Akt activity in mouse liver homogenates and increases glucose consumption in HepG2 cells.³ It inhibits the production of reactive oxygen species (ROS) induced by fMLP (Item No. 21495) in isolated human neutrophils when used at concentrations of 1 and 10 μM.⁴

References

1. Ryan, J.J. Flavonol glycosides of the cultivated strawberry. *J. Food Sci.* **36(6)**, 867-870 (1971).
2. Zheng, L., Zhu, L., Zhao, M., *et al.* *In vivo* exposure of kaempferol is driven by phase II metabolic enzymes and efflux transporters. *AAPS J.* **18(5)**, 1289-1299 (2016).
3. Fang, G., Cheng, C., Zhang, M., *et al.* The glucuronide metabolites of kaempferol and quercetin, targeting to the AKT PH domain, activate AKT/GSK3β signaling pathway and improve glucose metabolism. *J. Funct. Foods* **82**, 104501 (2021).
4. Granica, S., Czerwińska, M.E., Żyżyńska-Granica, B., *et al.* Antioxidant and anti-inflammatory flavonol glucuronides from *Polygonum aviculare* L. *Fitoterapia* **91**, 180-188 (2013).

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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