

PRODUCT INFORMATION



Chrysin 7-Glucuronide

Item No. 35034

CAS Registry No.: 35775-49-6
Formal Name: 5-hydroxy-4-oxo-2-phenyl-4H-1-benzopyran-7-yl β-D-glucopyranosiduronic acid
Synonyms: Chrysin 7-O-Glucuronide, Chrysin 7-O-β-D-Glucuronide

MF: C₂₁H₁₈O₁₀

FW: 430.4

Purity: ≥98%

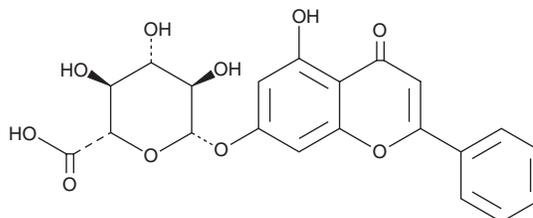
UV/Vis.: λ_{max}: 270 nm

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Item Origin: Plant/*Astragalus membranaceus*



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

Laboratory Procedures

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

Description

Chrysin 7-glucuronide is a flavonoid glucuronide that has been found in *S. baicalensis* and has diverse biological activities and is an active metabolite of chrysin (Item No. 17402).¹⁻⁴ It is formed from chrysin by various UDP-glucuronosyltransferase (UGT) isoforms, including UGT1A3, UGT1A6, and UGT1A9.⁴ Chrysin 7-glucuronide inhibits α-glucosidase, α-amylase, and neuraminidase (IC₅₀s = 612, 980, and 428 μg/ml, respectively).^{1,2} It also inhibits organic anion transporting polypeptide (OATP) isoforms OATP1A2, OATP1B1, OATP1B3, and OATP2B1 (IC₅₀s = 24.1, 4.4, 14.3, and 0.3 μM, respectively), as well as breast cancer resistance protein (BCRP) and multidrug resistance-associated protein 2 (MRP2; IC₅₀s = 19.8 and 11.2 μM, respectively).³

References

1. Li, K., Yao, F., Xue, Q., *et al.* Inhibitory effects against α-glucosidase and α-amylase of the flavonoids-rich extract from *Scutellaria baicalensis* shoots and interpretation of structure-activity relationship of its eight flavonoids by a refined assign-score method. *Chem. Cent. J.* **12**(1), 82 (2018).
2. Liu, W., Wang, H., Zhu, B., *et al.* An activity-integrated strategy of the identification, screening and determination of potential neuraminidase inhibitors from *Radix Scutellariae*. *PLoS One* **12**(5), e0175751 (2017).
3. Mohos, V., Fliszár-Nyúl, E., Ungvári, O., *et al.* Effects of chrysin and its major conjugated metabolites chrysin-7-sulfate and chrysin-7-glucuronide on cytochrome P450 enzymes and on OATP, P-gp, BCRP, and MRP2 Transporters. *Drug Metab. Dispos.* **48**(10), 1064-1073 (2020).
4. Robotham, S.A. and Brodbelt, J.S. Identification of flavone glucuronide isomers by metal complexation and tandem mass spectrometry: Regioselectivity of uridine 5'-diphosphate-glucuronosyltransferase isozymes in the biotransformation of flavones. *J. Agric. Food Chem.* **61**(7), 1457-1463 (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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