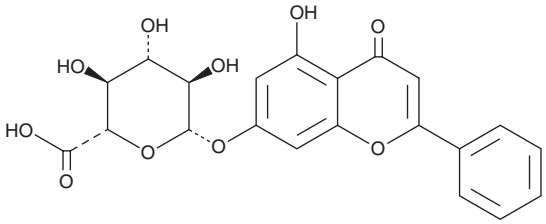
PRODUCT INFORMATION

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:	$C_{21}H_{18}O_{10}$
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 (IC_{50}s = 612, 980, and 428 µg/ml, respectively).[1,2] It also inhibits organic anion transporting polypeptide (OATP) isoforms OATP1A2, OATP1B1, OATP1B3, and OATP2B1 (IC_{50}s = 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; IC_{50}s = 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).

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