

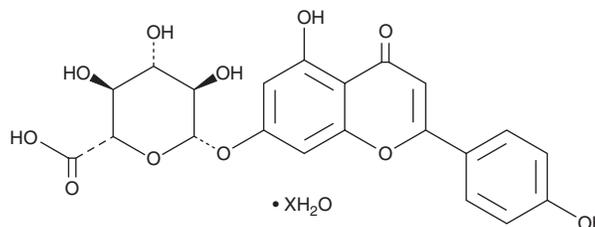
# PRODUCT INFORMATION



## Apigenin 7-O-Glucuronide (hydrate)

Item No. 33754

<b>Formal Name:</b>	$\beta$ -D-glucopyranosiduronic acid, 5-hydroxy-2-(4-hydroxyphenyl)-4-oxo-4H-1-benzopyran-7-yl, hydrate
<b>MF:</b>	$C_{21}H_{18}O_{11} \cdot XH_2O$
<b>FW:</b>	446.4
<b>Purity:</b>	$\geq 95\%$
<b>UV/Vis.:</b>	$\lambda_{max}$ : 270, 335 nm
<b>Supplied as:</b>	A solid
<b>Storage:</b>	-20°C
<b>Stability:</b>	$\geq 4$ years
<b>Item Origin:</b>	Plant/ <i>Ixeris sonchifolia</i>



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

### Laboratory Procedures

Apigenin 7-O-glucuronide (hydrate) is supplied as a solid. A stock solution may be made by dissolving the apigenin 7-O-glucuronide (hydrate) in the solvent of choice, which should be purged with an inert gas. Apigenin 7-O-glucuronide (hydrate) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of apigenin 7-O-glucuronide (hydrate) in these solvents is approximately 10 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of apigenin 7-O-glucuronide (hydrate) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of apigenin 7-O-glucuronide (hydrate) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Apigenin 7-O-glucuronide is a flavonoid that has been found in *J. sigillata* and has diverse biological activities<sup>1-4</sup>. It inhibits matrix metalloproteinase-3 (MMP-3), MMP-8, MMP-9, and MMP-13 ( $IC_{50}$ s = 12.87, 22.39, 17.52, and 0.27  $\mu$ M, respectively).<sup>1-4</sup> Apigenin 7-O-glucuronide also inhibits protein tyrosine phosphatase 1B (PTP1B), acetylcholinesterase (AChE), and aldose reductase with  $IC_{50}$  values of 7.14, 62.96, and 107.1  $\mu$ M, respectively.<sup>2,3</sup> It inhibits LPS-induced production of nitric oxide, prostaglandin  $E_2$  (PGE<sub>2</sub>; Item No. 14010), and TNF- $\alpha$  in RAW 264.7 cells when used at a concentration of 100  $\mu$ M.<sup>4</sup> Apigenin 7-O-glucuronide (5 or 10 mg/kg) improves survival in a mouse model of septic shock induced by LPS.

### References

1. Crasci, L., Basile, L., Panico, A., et al. *Planta Med.* **83**(11), 901-911 (2017).
2. Nguyen, D.H., Seo, U.M., Zhao, B.T., et al. *Bioorg. Chem.* **72**, 293-300 (2017).
3. Yoo, N.H., Jang, D.S., Yoo, J.L., et al. *J. Nat. Prod.* **71**(4), 713-715 (2008).
4. Hu, W., Wang, X., Wu, L., et al. *Food Funct.* **7**(2), 1002-1013 (2016).

#### 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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