

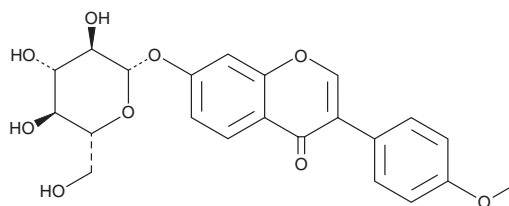
PRODUCT INFORMATION



Ononin

Item No. 27046

CAS Registry No.: 486-62-4
Formal Name: 7-(β-D-glucopyranosyloxy)-3-(4-methoxyphenyl)-4H-1-benzopyran-4-one
Synonyms: Formononetin 7-O-β-D-Glucopyranoside, Formononetin Glucoside, Formononetin 7-O-Glucoside
MF: C₂₂H₂₂O₉
FW: 430.4
Purity: ≥98%
UV/Vis.: λ_{max}: 233, 262 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Astragalus membranaceus* (Fisch.) Bunge



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

Laboratory Procedures

Ononin is supplied as a crystalline solid. A stock solution may be made by dissolving the ononin in the solvent of choice, which should be purged with an inert gas. Ononin is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ononin in these solvents is approximately 10 mg/ml. Ononin is also slightly soluble in ethanol.

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 ononin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of ononin in PBS, pH 7.2, is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Ononin is a glycoside isoflavone that has been found in soybeans and *A. mongholicus* and has anti-inflammatory and neuroprotective activities.¹⁻³ Ononin (5 μM) inhibits LPS-induced production of nitrite, prostaglandin E₂ (PGE₂; Item No. 14010), and the pro-inflammatory cytokines IL-1β, IL-6, and TNF-α by RAW 264.7 macrophages.³ It also inhibits glutamate-induced toxicity in rat adrenal PC12 cells when used at a concentration of 0.025 μg/ml.²

References

1. Wang, T., Liu, Y., Li, X., *et al.* Isoflavones from green vegetable soya beans and their antimicrobial and antioxidant activities. *J. Sci. Food Agric.* **98**(5), 2043-2047 (2018).
2. Yu, D., Duan, Y., Bao, Y., *et al.* Isoflavonoids from *Astragalus mongholicus* protect PC12 cells from toxicity induced by L-glutamate. *J. Ethnopharmacol.* **98**(1-2), 89-94 (2005).
3. Dong, L., Yin, L., Zhang, Y., *et al.* Anti-inflammatory effects of ononin on lipopolysaccharide-stimulated RAW 264.7 cells. *Mol. Immunol.* **83**, 46-51 (2017).

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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