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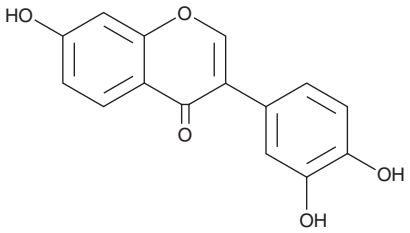
PRODUCT INFORMATION

3',4',7-Trihydroxyisoflavone

Item No. 20930

CAS Registry No.:	485-63-2
Formal Name:	3-(3,4-dihydroxyphenyl)-7-hydroxy-4H-1-benzopyran-4-one
Synonyms:	3'-hydroxy Daidzein, 3',4',7-THIF
MF:	$C_{15}H_{10}O_5$
FW:	270.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 219, 249, 261, 293 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

3',4',7-Trihydroxyisoflavone is supplied as a crystalline solid. A stock solution may be made by dissolving the 3',4',7-trihydroxyisoflavone in the solvent of choice. 3',4',7-Trihydroxyisoflavone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of 3',4',7-trihydroxyisoflavone in these solvents is approximately 1, 10, and 20 mg/ml, respectively.

3',4',7-Trihydroxyisoflavone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 3',4',7-trihydroxyisoflavone should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 3',4',7-Trihydroxyisoflavone has a solubility of approximately 0.1 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

3',4',7-Trihydroxyisoflavone is a natural isoflavonoid that has antioxidant activity.[1] It can be produced by the metabolism of daidzein (Item No. 10005166) or daidzin (Item No. 13202).[2,3] 3',4',7-Trihydroxyisoflavone inhibits several signaling pathways in cells, including tyrosinase-mediated melanin formation (IC_{50} = 5.2 µM), casein kinase II-mediated phosphorylation of 60S acidic ribosomal P proteins, and cyclin-dependent, kinase-regulated cell proliferation.[4-6]

References

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