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ProductInformation

Morin hydrate

Catalog Number **M4008**
Store at Room Temperature

Replacement for Catalog Number M87630

CAS RN 654055-01-3
Synonyms: 2′,3,4′,5,7-Pentahydroxyflavone;
Natural yellow 11

Product Description

Molecular Formula: $C_{15}H_{10}O_7 \cdot xH_2O$
Molecular Weight: 302.24 (anhydrous basis)

Morin is a flavonoid with anti-oxidant properties and has been shown to protect cells against oxygen radical damage. Morin was compared to two other flavinoids with regard to their cytoprotective effects against oxyradical damage to porcine aortic endothelial cells *in vitro*.[1] Another study showed that when morin was added to cultured rat glomerular mesangial cells which were attacked by oxyradicals, the survival time of the cells was doubled.[2]

Oxidative modification of low density lipoproteins (LDL) has been suggested to be a risk factor for the development of atherosclerosis. Agents which can protect LDL from oxidation may be useful in preventing atherogenesis. Morin (100 µM) effectively inhibits Cu^{2+}-induced oxidation of LDL[3] and at 75–100 µM protects against the oxidation of LDL by free radicals produced by 2,2′-azo-bis(2-amidinopropane) dihydrochloride.[4]

Morin exhibits *in vitro* inhibitory action on phosphatidyl-inositol phosphate kinase extracted from rat brain.[5]

A procedure for the fluorescent localization of aluminum in plant tissues using morin has been published.[6]

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

This product is soluble in methanol (50 mg/ml). It is also soluble in water (0.25 mg/ml, 20 °C; 0.94 mg/ml, 100 °C), freely soluble in alcohol, slightly soluble in ether and acetic acid, and soluble in aqueous alkaline solutions with intense yellow color which changes to brown when exposed to air.[7]

Storage/Stability

Store the product at room temperature.

References

1. Zeng, L.H., *et al*., Comparative protection against oxyradicals by three flavonoids on cultured endothelial cells. Biochem. Cell Biol., **75(6)**, 717-720 (1997).
2. Zeng, L.H., *et al*., Morin hydrate protects cultured rat glomerular mesangial cells against oxyradical damage. Life Sci., **55(18)**, PL351-357 (1994).
3. Wu, T.W., *et al*., Antioxidation of human low density lipoprotein by morin hydrate. Life Sci., **57(3)**, PL51-56 (1995).
4. Wu, T.W., *et al*., Morin hydrate inhibits azo-initiator induced oxidation of human low density lipoprotein. Life Sci., **58(2)**, PL17-22 (1996).
5. Cheng, C.H., *In vitro* and *in vivo* inhibitory actions of morin on rat brain phosphatidylinositolphosphate kinase activity. Life Sci., **61(20)**, 2035-2047 (1997).
6. Staining Procedures, 4th ed., Clark, G., ed., Williams and Wilkins (Baltimore, MD: 1981), p. 56.
7. The Merck Index, 12th ed., Entry# 6352.
8. Conn's Biological Stains, 9th ed., Lillie, R. D., Williams and Wilkins (Baltimore, MD: 1977), p. 481.

KAA,HLD,RXR,MAM 04/07-1