Data Sheet (Cat.No.TN2158)

TargetMol
A DRUG SCREENING EXPERT

Robinetin

Chemical Properties

CAS No.:	490-31-3
Formula:	C15H10O7
Molecular Weight:	302.2
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Robinetin has antioxidant and antiradical activities, inhibits EYPC membrane lipid peroxidation and HbA glycosylation with high efficiency.
Targets(IC_{50})	HIV: None
In vitro	Motivated by this scenario, we explored the binding of Robinetin (3,7,3',4',5'-pentahydroxyflavone, a bioflavonoid with remarkable 'two color' intrinsic fluorescence properties), with egg yolk phosphatidylcholine (EYPC) liposomes and normal human hemoglobin (HbA), using steady state and time resolved fluorescence spectroscopy. Distinctive fluorescence signatures obtained for Robinetin indicate its partitioning (K(p)=8.65x10(4)) into the hydrophobic core of the membrane lipid bilayer. HbA-Robinetin interaction was examined using both Robinetin fluorescence and flavonoid-induced quenching of the protein tryptophan fluorescence. Specific interaction with HbA was confirmed from three lines of evidence: (a) bimolecular quenching constant K(q)>>diffusion controlled limit; (b) closely matched values of Stern-Volmer quenching constant and binding constant; (c) tau(0)/tau=1 (where tau(0) and tau are the unquenched and quenched tryptophan fluorescence lifetimes, respectively).

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.309 mL	16.545 mL	33.091 mL
5 mM	0.662 mL	3.309 mL	6.618 mL
10 mM	0.331 mL	1.655 mL	3.309 mL
50 mM	0.066 mL	0.331 mL	0.662 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Binding of the bioflavonoid robinetin with model membranes and hemoglobin: Inhibition of lipid peroxidation and protein glycosylation.J Photochem Photobiol B. 2010 Jan 21;98(1):12-9.

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Tel:781-999-4286 E-mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481