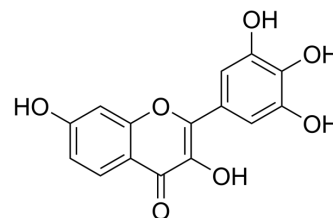


## Robinetin

<b>Cat. No.:</b>	HY-N1347
<b>CAS No.:</b>	490-31-3
<b>Molecular Formula:</b>	C <sub>15</sub> H <sub>10</sub> O <sub>7</sub>
<b>Molecular Weight:</b>	302.24
<b>Target:</b>	Fungal; HIV Integrase; Bacterial
<b>Pathway:</b>	Anti-infection; Metabolic Enzyme/Protease
<b>Storage:</b>	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 120 mg/mL (397.04 mM; Need ultrasonic)																					
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent</th> <th rowspan="2">Mass</th> <th colspan="3">Concentration</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Preparing Stock Solutions</td> <td>1 mM</td> <td>3.3086 mL</td> <td>16.5431 mL</td> <td>33.0863 mL</td> </tr> <tr> <td>5 mM</td> <td>0.6617 mL</td> <td>3.3086 mL</td> <td>6.6173 mL</td> </tr> <tr> <td>10 mM</td> <td>0.3309 mL</td> <td>1.6543 mL</td> <td>3.3086 mL</td> </tr> </tbody> </table>	Solvent	Mass	Concentration			1 mg	5 mg	10 mg	Preparing Stock Solutions	1 mM	3.3086 mL	16.5431 mL	33.0863 mL	5 mM	0.6617 mL	3.3086 mL	6.6173 mL	10 mM	0.3309 mL	1.6543 mL	3.3086 mL
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	Please refer to the solubility information to select the appropriate solvent.																					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 3 mg/mL (9.93 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 3 mg/mL (9.93 mM); Clear solution</li> </ol>																					

### BIOLOGICAL ACTIVITY

<b>Description</b>	Robinetin (3,3',4',5',7-Pentahydroxyflavone), a naturally occurring flavonoid with remarkable 'two color' intrinsic fluorescence properties, has antifungal, antiviral, antibacterial, antimutagenesis, and antioxidant activity. Robinetin also can inhibit lipid peroxidation and protein glycosylation <sup>[1][2][3][4][5]</sup> .
<b>In Vitro</b>	<p>Robinetin (0.1-10 μM; 1 h) inhibits HIV integrase cleavage and integration in a dose-dependent manner<sup>[1]</sup>. Robinetin inhibits the DNA synthesis in <i>Proteus vulgaris</i>, and the RNA synthesis in <i>S. aureus</i><sup>[2]</sup>.</p> <p>Robinetin (100-200 or 25 μM; 1 or 72 h) inhibits egg yolk phosphatidylcholine (EYPC) membrane lipid peroxidation and hemoglobin A (HbA) glycosylation with high efficiency<sup>[3]</sup>.</p> <p>Robinetin exhibits photo-induced excited-state intramolecular proton transfer resulting in 'two color' (in 'blue-violet' and 'yellow-green' regions) fluorescence characteristic of flavonols, the relative contributions between the two colors being strongly modulated by the local environment of the fluorophore<sup>[3]</sup>.</p>

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MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

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- [1]. Fesen MR, et, al. Inhibition of HIV-1 integrase by flavones, caffeic acid phenethyl ester (CAPE) and related compounds. *Biochem Pharmacol.* 1994 Aug 3;48(3):595-608.
- [2]. Cushnie TPT, et, al. Antimicrobial activity of flavonoids. *Int J Antimicrob Agents.* 2005 Nov;26(5):343-56.
- [3]. Chaudhuri S, et, al. 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.
- [4]. Birt DF, et, al. Anti-mutagenesis and anti-promotion by apigenin, robinetin and indole-3-carbinol. *Carcinogenesis.* 1986 Jun;7(6):959-63.
- [5]. Manrique-de-la-Cuba MF, et, al. Theoretical study of the antioxidant capacity of the flavonoids present in the *Annona muricata* (Soursop) leaves. *J Mol Model.* 2019 Jun 25;25(7):200.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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