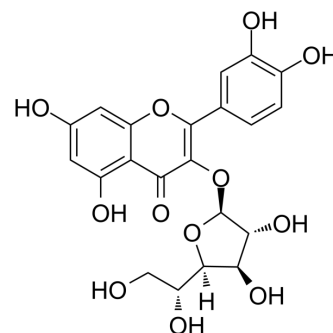


## Isoquercitrin

<b>Cat. No.:</b>	HY-N0768		
<b>CAS No.:</b>	21637-25-2		
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>20</sub> O <sub>12</sub>		
<b>Molecular Weight:</b>	464.38		
<b>Target:</b>	Reactive Oxygen Species		
<b>Pathway:</b>	Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 125 mg/mL (269.18 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	2.1534 mL	10.7670 mL	21.5341 mL
		5 mM	0.4307 mL	2.1534 mL	4.3068 mL
10 mM		0.2153 mL	1.0767 mL	2.1534 mL	
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: ≥ 2.08 mg/mL (4.48 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.48 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	Isoquercitrin (Isoquercitroside) is an effective antioxidant and an eosinophilic inflammation suppressor.
<b>In Vitro</b>	<p>Isoquercitrin occurs widely in plants. 10 μM of Isoquercitrin of the seven compounds partially but significantly blunt the negative effect of H<sub>2</sub>O<sub>2</sub> on RGC-5 cells, as the viability of cells in the presence of H<sub>2</sub>O<sub>2</sub> is increased from approximately 63% to 83% and 90% at 10 and 50 μM, respectively. Indeed, 50 μM Isoquercitrin is more effective as a neuroprotectant than the same concentration of EGCG<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
<b>In Vivo</b>	In animals receiving Isoquercitrin, eosinophil counts are lower in the BALF, blood and lung parenchyma. Neutrophil counts in blood and IL-5 levels in lung homogenate are lower only in Isoquercitrin-treated mice. No alterations in mononuclear cell

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numbers were observed<sup>[2]</sup>.

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## PROTOCOL

### Animal Administration <sup>[2]</sup>

Mice<sup>[2]</sup>

BALB/c mice are immunized (ovalbumin/aluminum hydroxide, s.c.), followed by two intranasal ovalbumin challenges. From day 18 to day 22 after the first immunization, the mice receive daily gavages of Isoquercitrin (15 mg/kg) or quercetin (10 mg/kg). Dexamethasone (1 mg/kg, s. c.) is administered as a positive control. Leucocytes are analyzed in bronchoalveolar lavage fluid (BALF), blood and pulmonary parenchyma at 24 h after the last ovalbumin challenge. Interleukin-5 (IL-5) is analyzed in BALF and lung homogenates<sup>[2]</sup>.

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

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## REFERENCES

[1]. Jung SH, et al. Isoquercitrin is the most effective antioxidant in the plant *Thuja orientalis* and able to counteract oxidative-induced damage to a transformed cell line (RGC-5 cells). *Neurochem Int.* 2010 Dec;57(7):713-21.

[2]. Rogerio AP, et al. Anti-inflammatory activity of quercetin and isoquercitrin in experimental murine allergic asthma. *Inflamm Res.* 2007 Oct;56(10):402-8.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA