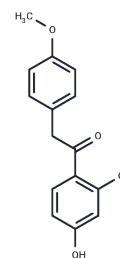


Ononetin

Chemical Properties

CAS No. :	487-49-0
Formula:	C ₁₅ H ₁₄ O ₄
Molecular Weight:	258.27
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Ononetin (2',4'-Dihydroxy-2-(4-methoxyphenyl)acetophenone) is a TRPM3 channel blocker (IC ₅₀ : 0.3 μM).
Targets(IC ₅₀)	TRP/TRPV Channel
In vitro	Administration of 1-10 μM Ononetin completely and reversibly abrogates Ca ²⁺ entry and ionic currents through recombinantly expressed TRPM3α2 and block the pregnenolone sulphate-inducible Ca ²⁺ entry in primary cultures of mouse or rat dorsal root ganglia (DRG) neurones[1].
In vivo	Intraperitoneal injection of 10 mg/kg Ononetin completely reverses established Freund's Complete Adjuvant (FCA)-induced heat hypersensitivity, demonstrating that the loss of hypersensitivity in Trpm3 ^{-/-} mice is unlikely to be caused by developmental or compensatory mechanisms[2].

Solubility Information

Solubility	DMSO: 55 mg/mL (212.96 mM), Sonication is recommended. Ethanol: < 30 mg/mL (116.16 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (7.74 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8719 mL	19.3596 mL	38.7192 mL
5 mM	0.7744 mL	3.8719 mL	7.7438 mL
10 mM	0.3872 mL	1.936 mL	3.8719 mL
50 mM	0.0774 mL	0.3872 mL	0.7744 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

I Straub, et al. Citrus fruit and fabacea secondary metabolites potently and selectively block TRPM3. Br J Pharmacol. 2013 Apr;168(8):1835-50.

Omar Alkhatib, et al. Promiscuous G-Protein-Coupled Receptor Inhibition of Transient Receptor Potential Melastatin 3 Ion Channels by G β y Subunits. J Neurosci. 2019 Oct 2;39(40):7840-7852.

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