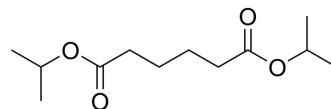


Diisopropyl adipate

Cat. No.:	HY-134098		
CAS No.:	6938-94-9		
Molecular Formula:	C ₁₂ H ₂₂ O ₄		
Molecular Weight:	230.3		
Target:	TRP Channel		
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling		
Storage:	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (434.22 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	4.3422 mL	21.7108 mL	43.4216 mL
	5 mM	0.8684 mL	4.3422 mL	8.6843 mL
	10 mM	0.4342 mL	2.1711 mL	4.3422 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (10.86 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (10.86 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (10.86 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Diisopropyl adipate is an alternative plasticizer and a TRPA1 activator. Diisopropyl adipate activates TRPA1 and enhances FITC-induced contact hypersensitivity (CHS). Diisopropyl adipate also serves as an ingredient in cosmetics and drug formulations topically applied to the skin. Diisopropyl adipate can be used as an excipient, such as emollients, plasticizers. Pharmaceutical excipients, or pharmaceutical auxiliaries, refer to other chemical substances used in the pharmaceutical process other than pharmaceutical ingredients. Pharmaceutical excipients generally refer to inactive ingredients in pharmaceutical preparations, which can improve the stability, solubility and processability of pharmaceutical preparations. Pharmaceutical excipients also affect the absorption, distribution, metabolism, and elimination (ADME) processes of co-

administered drugs^{[1][2]}.

REFERENCES

- [1]. Kurohane K, et al. Adjuvant Effect of an Alternative Plasticizer, Diisopropyl Adipate, on a Contact Hypersensitivity Mouse Model: Link with Sensory Ion Channel TRPA1 Activation. Biol Pharm Bull. 2015;38(7):1054-62.
- [2]. Elder DP, et al. Pharmaceutical excipients - quality, regulatory and biopharmaceutical considerations. Eur J Pharm Sci. 2016 May 25;87:88-99.
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Caution: Product has not been fully validated for medical applications. For research use only.

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