

## (S)-(+)-Dimethindene maleate

## Chemical Properties

CAS No. : 136152-65-3

Formula: C<sub>24</sub>H<sub>28</sub>N<sub>2</sub>O<sub>4</sub>

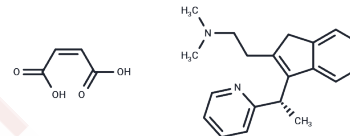
Molecular Weight: 408.49

Storage:

Keep away from direct sunlight, Store at low temperature, Keep away from moisture

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	(S)-(+)-Dimethindene maleate is an orally available, selective muscarinic M2 receptor and histamine H1 receptor antagonist that also inhibits muscarinic M1, M3, and M4 receptors.
Targets(IC50)	AChR, Histamine Receptor
In vitro	(S)-(+)-Dimethindene maleate (2 μM; 1 hour) partially reduces the developmental potential of mouse embryonic pluripotent stem (mEPS) cells in chimeric embryos, promoting the rapid differentiation of human pluripotent stem cells (hPSC) into hEPS cells[1].

## Solubility Information

Solubility	DMSO: 80 mg/mL (195.84 mM), Sonication is recommended. H <sub>2</sub> O: 10 mg/mL (24.48 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: 3.3 mg/mL (8.08 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

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.448 mL	12.2402 mL	24.4804 mL
5 mM	0.4896 mL	2.448 mL	4.8961 mL
10 mM	0.2448 mL	1.224 mL	2.448 mL
50 mM	0.049 mL	0.2448 mL	0.4896 mL

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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

Yang Y, et al. Derivation of Pluripotent Stem Cells with In Vivo Embryonic and Extraembryonic Potency. *Cell*. 2017; 169(2):243-257.e25.

Pfaff O, et al. The (S)-(+)-enantiomer of dimethindene: a novel M2-selective muscarinic receptor antagonist. *Eur J Pharmacol*. 1995;286(3):229-240.

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