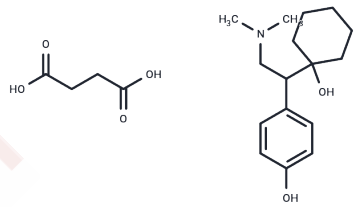
Data Sheet (Cat.No.T6188)

TargetMol

Desvenlafaxine succinate hydrate

Chemical Properties



CAS No. : 386750-22-7

Formula: C20H33NO7

Molecular Weight: 399.48

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	Desvenlafaxine succinate hydrate (WY 45233 Succinate) is an antidepressant of the serotonin-norepinephrine reuptake inhibitor (SNRI).
Targets(IC50)	5-HT Receptor,Norepinephrine,Serotonin Transporter
In vitro	Desvenlafaxine succinate is the succinate salt monohydrate of O-desmethylvenlafaxine, an active metabolite of venlafaxine. Desvenlafaxine Succinate is a serotonin-norepinephrine reuptake inhibitor and is the active metabolite of the antidepressant venlafaxine. Similar to venlafaxine, Desvenlafaxine Succinate inhibits the neuronal uptake of serotonin and norepinephrine. Desvenlafaxine Succinate shows weak binding affinity (62% inhibition at 100 μM) at the human dopamine (DA) transporter. Desvenlafaxine Succinate inhibits [3H]5-HT or [3H]NE uptake for the hSERT or hNET with IC50 of 47.3 and 531.3 nM, respectively.[1] Desvenlafaxine Succinate has the potential to inhibit CYP2D6, which could result in increased concentrations of drugs metabolized through this pathway. Induction of CYP3A4 is also possible with Desvenlafaxine Succinate, which could impact the metabolism of drugs metabolized via this enzyme. [2]
In vivo	Desvenlafaxine Succinate rapidly penetrates the male rat brain and hypothalamus. Desvenlafaxine Succinate significantly increases extracellular NE levels compared with baseline in the male rat hypothalamus but had no effect on DA levels using microdialysis. [1] Desvenlafaxine Succinate exhibits a linear and dose-proportional pharmacokinetic single-dose profile in a dose range from 100 to 600 mg/day. The absolute bioavailability of the oral formulation is 80.5%.[2]

Solubility Information

Solubility	DMSO: 50 mg/mL (125.16 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 (5.01 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5033 mL	12.5163 mL	25.0325 mL
5 mM	0.5007 mL	2.5033 mL	5.0065 mL
10 mM	0.2503 mL	1.2516 mL	2.5033 mL
50 mM	0.0501 mL	0.2503 mL	0.5007 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

Deecher DC, et al. J Pharmacol Exp Ther, 2006, 318(2), 657-665.
Sopko MA Jr, et al. Ann Pharmacother, 2008, 42(10), 1439-1446.

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