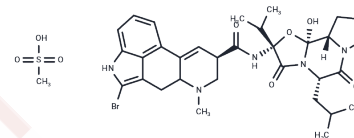


Bromocriptine mesylate

Chemical Properties

CAS No. :	22260-51-1
Formula:	C33H44BrN5O8S
Molecular Weight:	750.7
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	Bromocriptine mesylate (CB-154) is a potent dopamine receptor agonist that binds the D2 receptor with highest affinity ($K_i = 2.5 \text{ nM}$)
Targets(IC50)	Autophagy,Dopamine Receptor
In vitro	The ergot alkaloid bromocriptine (BKT) was found to act as a strong inhibitor of purified neuronal nitric oxide synthase (NOS) ($IC_{50} = 10 \pm 2 \text{ }\mu\text{M}$) whereas it was poorly active towards inducible macrophage NOS ($IC_{50} > 100 \text{ }\mu\text{M}$). BKT affects the activation of NOS by calmodulin, as it not only inhibits L-arginine oxidation to NO and L-citrulline but also NADPH oxidation and calmodulin-dependent cytochrome c reduction catalyzed by neuronal NOS. These results suggest that BKT could exert some of its therapeutic effects by interfering with the NOS-dependent formation of nitric oxide and/or superoxide ion in various tissues.

Solubility Information

Solubility	DMSO: 50 mg/mL (66.6 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 (2.66 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	1.3321 mL	6.6605 mL	13.3209 mL
5 mM	0.2664 mL	1.3321 mL	2.6642 mL
10 mM	0.1332 mL	0.666 mL	1.3321 mL
50 mM	0.0266 mL	0.1332 mL	0.2664 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

Renodon A , Boucher J L , Sari M A , et al. Bromocriptine is a strong inhibitor of brain nitric oxide synthase: possible consequences for the origin of its therapeutic effects[J]. 1997, 406(1-2):0-36.

Zhuang Y, Xu P, Mao C, et al. Structural insights into the human D1 and D2 dopamine receptor signaling complexes. Cell. 2021, 184(4): 931-942. e18.

Zhuang Y, Xu P, Mao C, et al. Structural insights into the human D1 and D2 dopamine receptor signaling complexes[J]. Cell. 2021

Structural insights into the human D1 and D2 dopamine receptor signaling complexes

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