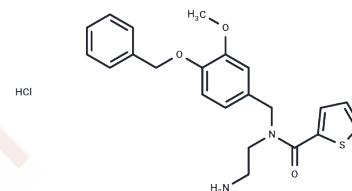


M8-B Hydrochloride

Chemical Properties

CAS No. :	883976-12-3
Formula:	C ₂₂ H ₂₅ ClN ₂ O ₃ S
Molecular Weight:	432.96
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	M8-B Hydrochloride is a selective transient receptor potential melastatin-8 (TRPM8) channel antagonist.
Targets(IC50)	TRP/TRPV Channel
In vivo	M8 B, a TRPM8 antagonist, can reduce body temperature. M8 B decreased the body temperature of rat pups and increased the latency to the first febrile seizure, implying a significant protective effect. It also induced a significant anticonvulsant effect in PTZ but not electroshock induced convulsions. M8 B showed anticonvulsant effects in both febrile and PTZ induced seizures. M8 B had a hypothermic effect with significant protective effects on febrile and PTZ induced seizures.
Animal Research	Eight day old male Wistar rat pups were used for induction of febrile seizure. M8 B and diazepam were injected intraperitoneally. The rat pups were then transferred to a heated plexiglas chamber and the latency to the first febrile seizure was measured. In addition, different groups of mice were pretreated with M8 B and received a convulsant dose of pentylenetetrazol (PTZ). Latencies to stages 2 and 4 and duration of stage 5 seizure episodes were measured. The effect of M8 B on electroshock induced seizures was also investigated and hindlimb extension time was measured[1].

Solubility Information

Solubility	DMSO: 125 mg/mL (288.71 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (23.1 mM), Solution. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.62 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	2.3097 mL	11.5484 mL	23.0968 mL
5 mM	0.4619 mL	2.3097 mL	4.6194 mL
10 mM	0.231 mL	1.1548 mL	2.3097 mL
50 mM	0.0462 mL	0.231 mL	0.4619 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

Zandi N , Zaniani N R , Moghimi A , et al. Protective effects of M8-B, a TRPM8 antagonist, on febrile- and pentylenetetrazol-induced seizures[J]. *Acta neurobiologiae experimentalis*, 2019, 79(1):86-91.

Almeida M C , Hew-Butler T , Soriano R N , et al. Pharmacological Blockade of the Cold Receptor TRPM8 Attenuates Autonomic and Behavioral Cold Defenses and Decreases Deep Body Temperature[J]. *Journal of Neuroscience*, 2012, 32(6):2086-2099.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481