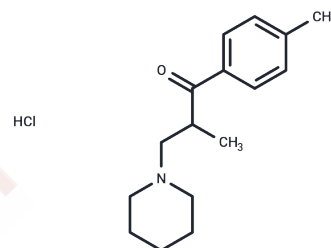


Tolperisone hydrochloride

Chemical Properties

CAS No. : 3644-61-9
 Formula: C₁₆H₂₄ClNO
 Molecular Weight: 281.82
 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	Tolperisone hydrochloride (Muscalm), a centrally acting muscle relaxant, is used in the therapy of pathologically increased tone of the cross-striated muscle resulted by neurological diseases (damage of the encephalomyelitis, myelopathy, multiple sclerosis, pyramidal tract) and of spastic paralysis and other encephalopathies manifested with muscular dystonia.
Targets(IC50)	Apoptosis,Sodium Channel
In vivo	Tolperisone hydrochloride is a safe and effective drug for the treatment of pain-reflex muscle spasms without the typical side effects of central muscle relaxants.Tolperisone blocks calcium ion flow in snail neurons, decreases sodium-potassium ion permeability at frog Lang's ganglion, and has an current passage through Nav1.6 channels (heterologous expression) Inhibitory effect on current through Nav1.6 channel (heterologous expression).

Solubility Information

Solubility	DMSO: 55 mg/mL (195.16 mM),Sonication is recommended. Ethanol: 52 mg/mL (184.51 mM),Sonication is recommended. H ₂ O: 51 mg/mL (180.97 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 (7.1 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	3.5484 mL	17.7418 mL	35.4836 mL
5 mM	0.7097 mL	3.5484 mL	7.0967 mL
10 mM	0.3548 mL	1.7742 mL	3.5484 mL
50 mM	0.071 mL	0.3548 mL	0.7097 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

Hofer D, et al. Eur J Pharmacol, 2006, 538(1-3), 5-14.

Pratzel HG, et al. Pain, 1996, 67(2-3), 417-425.

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