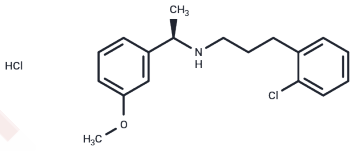
Data Sheet (Cat.No.T13918)

TargetMol

Tecalcet Hydrochloride

Chemical Properties



CAS No. : 177172-49-5

Formula: C18H23Cl2NO

Molecular Weight: 340.29

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	Tecalcet Hydrochloride (R-568 hydrochloride) is an allosteric and positive modulator of the calcium-sensing receptor(CaSR). Tecalcet Hydrochloride increases the sensitivity to the activation of extracellular Ca2+.
Targets(IC50)	CaSR
In vitro	Tecalcet Hydrochloride (0.1-100 nM) shifts the concentration-response curve for extracellular Ca2 to the left and decreases the EC50 value to 0.61 mM. Tecalcet Hydrochloride (0.1-100 μM) increases Ca2+ in a dose-dependent and stereoselective manner[3].
In vivo	In male Sprague-Dawley rats with renal insufficiency, Tecalcet Hydrochloride (1.5 and 15 mg/kg, oral) inhibits PT cell proliferation and reduces serum PTH level in a dose-dependent manner. Tecalcet Hydrochloride reduces the number of BrdU-positive PT cells by 20% at a low dose (1.5 mg/kg), and by 50% at a high dose (15 mg/kg)[1].

Solubility Information

Solubility	DMSO: 150 mg/mL (440.8 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 (5.88 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	2.9387 mL	14.6933 mL	29.3867 mL
5 mM	0.5877 mL	2.9387 mL	5.8773 mL
10 mM	0.2939 mL	1.4693 mL	2.9387 mL
50 mM	0.0588 mL	0.2939 mL	0.5877 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

Wada, M., et al. The calcimimetic compound NPS R-568 suppresses parathyroid cell proliferation in rats with renal insufficiency. Control of parathyroid cell growth via a calcium receptor. Journal of Clinical Investigation 100(12), 2977-2983 (1997).
Nemeth, E.F., et al. The parathyroid calcium receptor: a novel therapeutic target for treating hyperparathyroidism. Pediatr.Nephrol. 10(3), 275-279 (1996).
Nemeth, E.F., et al. Calcimimetics with potent and selective activity on the parathyroid calcium receptor. Proceedings of the National Academy of Sciences of the United States of America 95(7), 4040-4045 (1998).