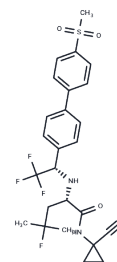


Odanacatib

Chemical Properties

CAS No. :	603139-19-1
Formula:	C ₂₅ H ₂₇ F ₄ N ₃ O ₃ S
Molecular Weight:	525.56
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	Odanacatib is an inhibitor of cathepsin K with potential anti-osteoporotic activity.
Targets(IC50)	Cysteine Protease
In vitro	In rats, Odanacatib (10 mg/kg) exhibits efficient clearance (Cl: 2 mL kg ⁻¹ min ⁻¹), low volume of distribution (V _{dss} : 1.1 L kg ⁻¹), a half-life (T _{1/2}) of 6 hours, and oral bioavailability (F) of 8%.
In vivo	Odanacatib exhibits inhibitory activity towards human cathepsin K (IC ₅₀ =0.2 nM) and rabbit cathepsin K (IC ₅₀ =1 nM). It also demonstrates effectiveness in human cell assays with an IC ₅₀ value of 5 nM.

Solubility Information

Solubility	H ₂ O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 250 mg/mL (475.68 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 (19.03 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Corn Oil: 3.3 mg/mL (6.28 mM), Sonication is recommended. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (19.03 mM), Suspension. <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	1.9027 mL	9.5137 mL	19.0273 mL
5 mM	0.3805 mL	1.9027 mL	3.8055 mL
10 mM	0.1903 mL	0.9514 mL	1.9027 mL
50 mM	0.0381 mL	0.1903 mL	0.3805 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

- Gauthier JY, et al. *Bioorg Med Chem Lett*. 2008, 18(3), 923-928.
Leung P, et al. *Bone*. 2011, 49(4), 623-635.
Pennypacker BL, et al. *J Bone Miner Res*. 2011, 26(2):252-262.
Masarachia PJ, et al. *J Bone Miner Res*. 2012, 27(3), 509-523.

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