

TMC353121

Chemical Properties

CAS No. : 857066-90-1

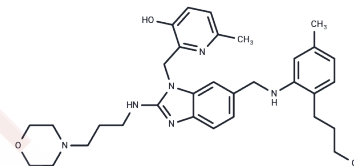
Formula: C₃₂H₄₂N₆O₃

Molecular Weight: 558.71

Store at low temperature

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	TMC353121 is a respiratory syncytial virus (RSV) fusion inhibitor with anti-RSV activity that inhibits the production of the inflammatory cytokines TNF- α , IL-6, and IL-1 β , as well as chemokines, KC, IP-10, MCP, and MIP1- α .
Targets(IC50)	IL Receptor,RSV,TNF
In vitro	TMC353121 is an effective RSV fusion inhibitor, active against wild-type RSV (strain LO) with a 50% effective concentration (EC ₅₀) of 0.07 ng/mL in HeLaM cells[2].
In vivo	After single subcutaneous administration and repeated administration 24 hours post-intranasal RSV inoculation, TMC353121 dose-dependently reduces viral titers in bronchoalveolar lavage fluid[2].

Solubility Information

Solubility	DMSO: 30 mg/mL (53.7 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 (3.58 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	1.7898 mL	8.9492 mL	17.8984 mL
5 mM	0.358 mL	1.7898 mL	3.5797 mL
10 mM	0.179 mL	0.8949 mL	1.7898 mL
50 mM	0.0358 mL	0.179 mL	0.358 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

- Bonfanti JF, et al. Selection of a respiratory syncytial virus fusion inhibitor clinical candidate. 2. Discovery of a morpholinopropylaminobenzimidazole derivative (TMC353121). *J Med Chem.* 2008 Feb 28;51(4):875-96.
- Rouan MC, et al. Pharmacokinetics-pharmacodynamics of a respiratory syncytial virus fusion inhibitor in the cotton rat model. *Antimicrob Agents Chemother.* 2010 Nov;54(11):4534-9.
- Olszewska W, et al. Antiviral and lung protective activity of a novel respiratory syncytial virus fusion inhibitor in a mouse model. *Eur Respir J.* 2011 Aug;38(2):401-8.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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