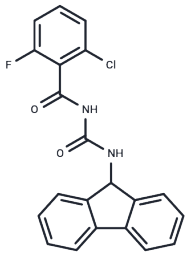
Data Sheet (Cat.No.T13171)

TMN355

Chemical Properties



CAS No. :	1186372-20-2
Formula:	C21H14ClFN2O2
Molecular Weight:	380.8
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	TMN355 is a potent chemical inhibitor of cyclophilin A and reduces foam cell formation and cytokine secretion,and is used for atherosclerosis.
Targets(IC50)	Others
In vitro	Silencing cyclophilin A in THP-1 cells and human monocytes using siRNA or chemical inhibitor, TMN355 resulted in decrease in lipid uptake by 65-75% even after exposure to oxidized LDL. The expression of scavenger receptors expressed during differentiation process, CD36 and LOX-1 were decreased ($p < 0.0001$). Levels of extracellular cyclophilin A and other inflammatory cytokines such as TNF-α and MCP-1also significantly reduced. TMN 355 (0.5-10 μM; 3-9 hours) results in 75.9% reduction of cyclophilin A protein expression. And cyclophilin A after 6 h of activation inhibited by TMN 355(1 μM).

Solubility Information

Solubility	DMSO: 40 mg/mL (105.04 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (5.25 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	2.6261 mL	13.1303 mL	26.2605 mL
5 mM	0.5252 mL	2.6261 mL	5.2521 mL
10 mM	0.2626 mL	1.313 mL	2.6261 mL
50 mM	0.0525 mL	0.2626 mL	0.5252 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

Ramachandran S, et al. Cyclophilin A enhances macrophage differentiation and lipid uptake in high glucose conditions: a cellular mechanism for accelerated macro vascular disease in diabetes mellitus. Cardiovasc Diabetol. 2016 Nov 3;15(1):152.