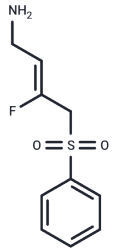
Data Sheet (Cat.No.T60296)

TargetMol

PXS-4787

Chemical Properties



CAS No. : 2409963-50-2

Formula: C10H12FNO2S

Molecular Weight: 229.27

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	PXS-4787 is a potent and selective inhibitor of lysyl oxidase (LOX) with broad-spectrum activity. It effectively suppresses lysyl oxidase activity by acting on its mechanisms. The compound displays inhibitory effects with IC50 values of 2 μM (Bovine LOX), 3.2 μM (rh LOXL1), 0.6 μM (rh LOXL2), 1.4 μM (rh LOXL3), and 0.2 μM (rh LOXL4), respectively [1].
Targets(IC50)	Others,Monoamine Oxidase
In vitro	PXS-4787, in a concentration and time-dependent manner, inhibits lysyl oxidase—a key enzyme in stabilizing collagen in scar tissue, thereby affecting scar stiffness and appearance. This compound exhibits consistent inhibitory effects across different species. When tested on primary human dermal fibroblasts, PXS-4787 is well-tolerated, and specific dosages (e.g., 10 μM for up to 11 days) can significantly reduce collagen formation, deposition, and crosslinking in these cells. Additionally, a particular dose (10 μM for 48 hours) alters the expression of certain genes in fibroblasts and keratinocytes, such as COL1A1, LOX, GAPDH, and PGK1, indicating its potential for modifying cellular responses related to scarring. Immunofluorescence and RT-PCR studies further confirm the compound's efficacy in reducing collagen in treated groups and in inducing gene expression changes, underscoring its therapeutic potential in managing scar formation and appearance.
In vivo	PXS-4787, a 3% oil-in-water cream applied topically once daily, reduces collagen deposition and cross-linking in murine injury and fibrosis models over 28 days and enhances scar appearance without compromising tissue strength in porcine injury models over 12 weeks, suggesting a target-driven benefit. In a specific porcine excision injury model using female juvenile pigs weighing 18-20 kg, a 400 mg dose of the cream was applied externally to a 16 cm^2 area once daily starting 1, 2, and 3 weeks post-injury for a duration of 12 weeks. The results indicate an improved scar appearance in relevant in vivo models, supporting the compound's therapeutic potential in wound healing and fibrosis.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3617 mL	21.8083 mL	43.6167 mL
5 mM	0.8723 mL	4.3617 mL	8.7233 mL
10 mM	0.4362 mL	2.1808 mL	4.3617 mL
50 mM	0.0872 mL	0.4362 mL	0.8723 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.

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