PXS-6302

Cat. No.: HY-151499

CAS No.: 2584947-54-4

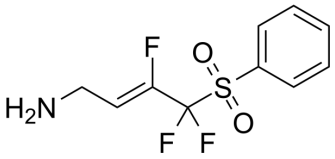
Molecular Formula: $C_{10}H_{10}F_3NO_2S$

Molecular Weight: 265.25

Target: Monoamine Oxidase

Pathway: Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (377.00 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.7700 mL	18.8501 mL	37.7003 mL
	5 mM	0.7540 mL	3.7700 mL	7.5401 mL
	10 mM	0.3770 mL	1.8850 mL	3.7700 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (9.43 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 2.5 mg/mL (9.43 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

PXS-6302 is an irreversible lysyl oxidase inhibitor with IC_{50}s of 3.7 μM (Bovine LOX), 3.4 μM (rh LOXL1), 0.4 μM (rh LOXL2), 1.5 μM (rh LOXL3), 0.3 μM (rh LOXL4), respectively. PXS-6302 has readily skin penetrability, reduces collagen deposition and significantly improves scar appearance[1].

IC_{50} & Target

3.7 μM (Bovine LOX), 3.4 μM (rh LOXL1), 0.4 μM (rh LOXL2), 1.5 μM (rh LOXL3), 0.3 μM (rh LOXL4)[1]

In Vitro

PXS-6302 demonstrates high permeability to across a monolayer of cells, such as Caco-2 or MDCKII cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

PXS-6302 inhibits LOX, reduces crosslinking and improves scar appearance in porcine models of excisional and burn injury[1]
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PXS-6302 (1.5%, oil in water cream; 500 mg cream applied to 16 cm^2; external application; once daily, for 28 days) reduces collagen deposition and cross-linkin in murine models of injury and fibrosis under topical application[1].
PXS-6302 (0.5, 1.5, or 3%, oil in water cream; 400 mg cream applied to 16 cm^2; external application; once daily, for 12 weeks) also significantly improves scar appearance without reducing tissue strength in porcine injury models under topical application[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Porcine excision injury model (female Juvenile pigs, 18-20 kg)[1]
Dosage:	0.5, 1.5, or 3%, oil in water cream; 400 mg cream applied to 16 cm^2
Administration:	External application; 1, 2 and 3 weeks post-injury; once dayly, for 12 weeks
Result:	Showed significantly higher scores for the 3% treated scars suggesting significant improvement in scar appearance.

REFERENCES

[1]. Chaudhari N, et al. Topical application of an irreversible small molecule inhibitor of lysyl oxidases ameliorates skin scarring and fibrosis. Nat Commun. 2022 Sep 22;13(1):5555.

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