TMI-1

Cat. No.: HY-101448

CAS No.: 287403-39-8

Molecular Formula: $C_{17}H_{22}N_2O_5S_2$

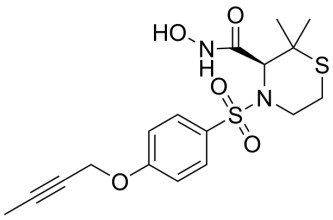
Molecular Weight: 398.5

Target: MMP; Apoptosis

Pathway: Metabolic Enzyme/Protease; Apoptosis

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (250.94 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5094 mL	12.5471 mL	25.0941 mL
	5 mM	0.5019 mL	2.5094 mL	5.0188 mL
	10 mM	0.2509 mL	1.2547 mL	2.5094 mL

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

BIOLOGICAL ACTIVITY

Description

TMI-1 is a potent inhibitor of disintegrin metalloenzyme 17 (ADAM17) and other MMPs. TMI-1 inhibits LPS-induced TNF-α secretion in human primary monocytes, and human whole blood[1]. TMI-1 selectively induces caspase-dependent apoptosis in triple negative (TN) and ERBB2-overexpressing breast tumor cell lines[2].

IC_{50} & Target

ADAM17

8.4 nM (IC_{50})

REFERENCES

[1]. Zhang Y, et al. Identification and characterization of 4-[[4-(2-butynyloxy)phenyl]sulfonyl]-N-hydroxy-2,2-dimethyl-(3S)thiomorpholinecarboxamide (TMI-1), a novel dual tumor necrosis factor-alpha-converting enzyme/matrix metalloprotease inhibitor for the treatment of rheumatoid arthritis. J Pharmacol Exp Ther. 2004 Apr;309(1):348-55.

[2]. Mezil L, et al. Tumor selective cytotoxic action of a thiomorpholin hydroxamate inhibitor (TMI-1) in breast cancer. PLoS One. 2012;7(9):e43409.

Caution: Product has not been fully validated for medical applications. For research use only.

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