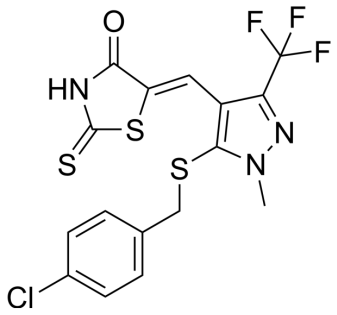
ADAMTS-5 Inhibitor

Cat. No.:	HY-114996
CAS No.:	929634-33-3
Molecular Formula:	$C_{16}H_{11}ClF_3N_3OS_3$
Molecular Weight:	449.92
Target:	ADAMTS
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 83.33 mg/mL (185.21 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2226 mL	11.1131 mL	22.2262 mL
	5 mM	0.4445 mL	2.2226 mL	4.4452 mL
	10 mM	0.2223 mL	1.1113 mL	2.2226 mL

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

BIOLOGICAL ACTIVITY

Description

ADAMTS-5 Inhibitor is a potent ADAMTS-5 (aggrecanase-2) inhibitor, with an IC_{50} of 1.1 μM. ADAMTS-5 Inhibitor shows >40-fold functional selectivity over ADAMTS-4 (aggrecanase-1)[1].

In Vitro

ADAMTS-5 (aggrecanase-2) is an extracellular matrix-degrading protease implicated in cartilage destruction in arthritis[2].

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

CUSTOMER VALIDATION

- Exp Eye Res. 2023 Jul 23;234:109597.
- Theriogenology. 2023 Aug 8.
- SSRN. 2023 Apr 21.

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REFERENCES

[1]. Gilbert AM, et al. 5-((1H-pyrazol-4-yl)methylene)-2-thioxothiazolidin-4-one inhibitors of ADAMTS-5. Bioorg Med Chem Lett. 2007 Mar 1;17(5):1189-92.

[2]. Wylie JD, et al. Adamts5 (aggrecanase-2) is widely expressed in the mouse musculoskeletal system and is induced in specific regions of knee joint explants by inflammatory cytokines. J Orthop Res. 2012 Feb;30(2):226-33.

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

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