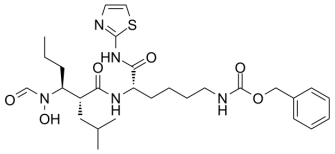
GW280264X

Cat. No.:	HY-115670
CAS No.:	866924-39-2
Molecular Formula:	$C_{28}H_{41}N_5O_6S$
Molecular Weight:	575.72
Target:	MMP
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (217.12 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.7370 mL	8.6848 mL	17.3696 mL
	5 mM	0.3474 mL	1.7370 mL	3.4739 mL
	10 mM	0.1737 mL	0.8685 mL	1.7370 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (3.61 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

GW280264X is the mixed ADAM10/TACE (ADAM17) metalloproteinases inhibitor. GW280264X potently blocks TACE (ADAM17) and ADAM10 with IC_{50}s of 8.0 nM and 11.5 nM, respectively[1]. ADAM10 and 17 modulate the immunogenicity of glioblastoma-initiating cells[2].

IC_{50} & Target

ADAM17	ADAM10
8 nM (IC_{50})	11.5 nM (IC_{50})

In Vitro

The proliferation of GS-7 cells was significantly reduced upon treatment with GW280264X or ADAM10/17 co-knockdown[2].

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

Cell Viability Assay[2]

Cell Line:	Glioblastoma-initiating cells (GIC) GS-7 cells

Concentration:	0.1, 1, and 3 μM
Incubation Time:	48 hours
Result:	Proliferation of GIC is inhibited through inhibition of ADAM10 and ADAM17.

In Vivo

Pharmacological inhibition of ADAM10 and ADAM17 improves functional recovery after spinal cord injury (SCI)[3].

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

Animal Model:	C57BL/6 mice[3]
Dosage:	100 μg/kg
Administration:	I.p. injected; every day for one week starting 4 h post-surgery
Result:	Showed significantly improved functional recovery compared to the control group.

REFERENCES

[1]. Christian Hundhausen, et al. The disintegrin-like metalloproteinase ADAM10 is involved in constitutive cleavage of CX3CL1 (fractalkine) and regulates CX3CL1-mediated cell-cell adhesion. Blood. 2003 Aug 15;102(4):1186-95.

[2]. Fabian Wolpert, et al. A disintegrin and metalloproteinases 10 and 17 modulate the immunogenicity of glioblastoma-initiating cells. Neuro Oncol. 2014 Mar;16(3):382-91.

[3]. Daniela Sommer, et al. ADAM17-deficiency on microglia but not on macrophages promotes phagocytosis and functional recovery after spinal cord injury. Brain Behav Immun. 2019 Aug;80:129-145.

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