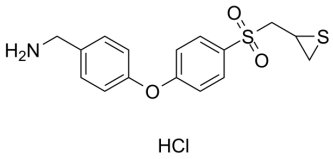
ND-336

Cat. No.:	HY-124373
CAS No.:	1807453-83-3
Molecular Formula:	$C_{16}H_{18}ClNO_3S_2$
Molecular Weight:	371.9
Target:	MMP
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	ND-336 is a selective inhibitor of matrix metalloproteinase (MMP)-2, MMP-9, and MMP-14, with K_is of 85, 150, and 120 nM, respectively. ND-336 accelerates diabetic wound healing in mice by lowering inflammation and by enhancing angiogenesis and re-epithelialization of the wound[1][2].

IC_{50} & Target	MMP-2	MMP-9	MMP-14
	85 nM (Ki)	150 nM (Ki)	120 nM (Ki)

In Vivo

ND-336 accelerates diabetic wound healing by decreasing inflammation and by enhancing angiogenesis and re-epithelialization of the wound, thus reversing the pathological condition[1].

ND-336 (0.05-0.01 mg; topical application; daily for 14 day) accelerates diabetic wound healing[1].

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

Animal Model:	Female diabetic db/db mice[1]
Dosage:	0.05, 0.025, and 0.01 mg
Administration:	Topical application; daily for 14 day
Result:	Healed 1.2- to 1.6-fold faster than those treated with ND-322 than those treated with vehicle.

REFERENCES

[1]. Gao M, et al. Acceleration of diabetic wound healing using a novel protease-anti-protease combination therapy. Proc Natl Acad Sci U S A. 2015;112(49):15226-15231.

[2]. Nguyen TT, et al. Validation of Matrix Metalloproteinase-9 (MMP-9) as a Novel Target for Treatment of Diabetic Foot Ulcers in Humans and Discovery of a Potent and Selective Small-Molecule MMP-9 Inhibitor That Accelerates Healing. J Med Chem. 2018;61(19):8825-8837.

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

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