LM11A-31 dihydrochloride

Cat. No.: HY-110155

CAS No.: 1243259-19-9

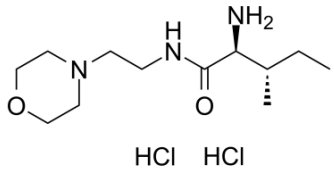
Molecular Formula: $C_{12}H_{27}Cl_2N_3O_2$

Molecular Weight: 316.27

Target: Others

Pathway: Others

Storage: 4°C, stored under nitrogen, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 125 mg/mL (395.23 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.1619 mL	15.8093 mL	31.6186 mL
	5 mM	0.6324 mL	3.1619 mL	6.3237 mL
	10 mM	0.3162 mL	1.5809 mL	3.1619 mL

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

BIOLOGICAL ACTIVITY

Description

LM11A-31 dihydrochloride, a non-peptide $p75^{NTR}$ (neurotrophin receptor p75) modulator, is an orally active and potent proNGF (nerve growth factor) antagonist. LM11A-31 dihydrochloride is an amino acid derivative with high blood-brain barrier permeability and blocks p75-mediated cell death. M11A-31 dihydrochloride reverses cholinergic neurite dystrophy in Alzheimer's disease mouse models with mid- to late-stage disease progression[1][2].

IC_{50} & Target

proNGF[1]

In Vivo

LM11A-31 (oral gavage; 50 mg kg/day for 4 weeks) significantly mitigates proNGF accumulation and preserves BRB integrity [1].

LM11A-31 (orally; 50 or 75 mg/kg) administered for 3 months starting at 6-8 months of age prevents and/or reverses atrophy of basal forebrain cholinergic neurites and cortical dystrophic neurites in mid-stage male APPL/S mice[2].

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

Animal Model:	Male C57BL/6 J mice[1]

Dosage:	50 mg kg/day
Administration:	Oral gavage; for 4 weeks
Result:	Mitigated proNGF accumulation and preserved BRB integrity.

REFERENCES

[1]. Elshaer SL, et al. Modulation of the p75 neurotrophin receptor using LM11A-31 prevents diabetes-induced retinalvascular permeability in mice via inhibition of inflammation and the RhoA kinase pathway. Diabetologia. 2019 Aug;62(8):1488-1500.

[2]. Simmons DA, et al. A small molecule p75NTR ligand, LM11A-31, reverses cholinergic neurite dystrophy in Alzheimer's disease mouse models with mid- to late-stage disease progression. PLoS One. 2014 Aug 25;9(8):e102136.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA