Product Datasheet

Technical Data

Formula	$C_{12}H_{25}N_3O_2$					
Molecular Weight	243.35	**CAS No.**	289475-77-0			
Solubility (25°C)*	In vitro	DMSO	49 mg/mL (201.35 mM)			
		Water	49 mg/mL (201.35 mM)			
		Ethanol	49 mg/mL (201.35 mM)			
	In vivo (Add solvents to the product individually and in order)	Oral Administration	Homogeneous suspension	CMC-NA	≥5mg/ml	Taking the 1 mL working solution as an example, add 5 mg of this product to 1 ml of CMC-Na solution, mix evenly to obtain a homogeneous suspension with a final concentration of 5 mg/ml.
		Injection	Clear solution	5%DMSO [1]→ 40%PEG300 [2]→ 5%Tween80 [3]→ 50%ddH2O Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	2.45mg/ml (10.07mM)	Taking the 1 mL working solution as an example, add 50 μL of 49 mg/ml clarified DMSO stock solution to 400 μL of PEG300, mix evenly to clarify it; add 50 μL of Tween80 to the above system, mix evenly to clarify; then continue to add 500 μL of ddH2O to adjust the volume to 1 mL. The mixed solution should be used immediately for optimal results.
			Clear solution	5% DMSO [1]→ 95% Corn oil Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	0.35mg/ml (1.44mM)	Taking the 1 mL working solution as an example, add 50 μL of 7 mg/ml clear DMSO stock solution to 950 μL of corn oil and mix evenly. The mixed solution should be used immediately for optimal results.

* <1 mg/ml means slightly soluble or insoluble.
* Please note that Capsid Bio tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.
* Room temperature shipping (Stability testing shows this product can be shipped at 2-8°C for storage purposes.)

Preparing Stock Solutions

Concentration \ Volume / Mass	1 mg	5 mg	10 mg
1 mM	4.1093 mL	20.5465 mL	41.0931 mL
5 mM	0.8219 mL	4.1093 mL	8.2186 mL
10 mM	0.4109 mL	2.0547 mL	4.1093 mL
50 mM	0.0822 mL	0.4109 mL	0.8219 mL

Biological Activity

Description	LM11A-31 is a small molecule **$p75^{NTR}$** Ligand that reverses cholinergic neurite dystrophy in alzheimer's diseasemousemodels with mid- to late-stage disease progression.
In vitro	LM11A-31 greatly reduces or eliminates the neuronal pathology as well as the FIV effects on astrocytes and microglia in an infectious in vitro model, indicating an excellent potential for the treatment of HIV-associated neurodegeneration.^{[1]}
In vivo	LM11A-31 is a small molecular $p75^{NTR}$ ligand, which reverses cholinergic neurite dystrophy in mice with advanced Alzheimer's disease.[2]

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  Feline choroid plexus macrophages infected with FIV
- **Concentrations**
  10 nM
- **Incubation Time**
  14 h
- **Method**
  Cat neurons were seeded at a very low density and half the cultures were treated with 10 nM LM11A-31 in the medium. Initial seeding density was matched within each run at approximately 2,800-4,000 cells/cm2 and cultures were fed every 2 days with complete MEM or MEM + this compound.

Animal Study:
^{[2]}

- **Animal Models**
  Thy-1 $hAPP^{Lond/Swe}$ ($APP^{L/S}$) and Tg2576 mouse model
- **Dosages**
  50 mg/kg for $APP^{L/S}$ mouse; 10, 50, 75 and 100 mg/kg/day (n=3-4 Tg2576 mice/dose)
- **Administration**
  Oral gavage

References

https://pubmed.ncbi.nlm.nih.gov/22161560/ https://pubmed.ncbi.nlm.nih.gov/25153701/

RETURN POLICY

Capsid Bio's Unconditional Return Policy ensures a smooth online shopping experience for our customers. If you are in any way unsatisfied with your purchase, you may return any item(s) within 7 days of receiving it. In the event of product quality issues, either protocol related or product related problems, you may return any item(s) within 365 days from the original purchase date. Please follow the instructions below when returning products.

SHIPPING & STORAGE

Capsid Bio products are transported at room temperature. If you receive the product at room temperature, please rest assured, the Capsid Bio Quality Inspection Department has conducted experiments to verify that the normal temperature placement of one month will not affect the biological activity of powder products. After collecting, please store the product according to the requirements described in the datasheet. Most Capsid Bio products are stable under the recommended conditions.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

EU Headquarters
Gajeva ulica 28, HR-10000 Zagreb, Croatia

US Headquarters
12222 Merit Dr STE 130 Dallas, Texas, 75251

UK Headquarters
121 ABILITY HOUSE, BROOKER ROAD, EN9 1JH, ESSEX

Orders: Sales@capsidbio.com
Enquiries: info@capsidbio.com
www.capsidbio.com