

Product data sheet



MedKoo Cat#: 510342 Name: L-701324 CAS: 142326-59-8 Chemical Formula: C ₂₁ H ₁₄ ClNO ₃ Exact Mass: 363.0662 Molecular Weight: 363.797	
Product supplied as: Powder	
Purity (by HPLC): ≥ 98%	
Shipping conditions: Ambient temperature	
Storage conditions: Powder: -20°C 3 years; 4°C 2 years.	
In solvent: -80°C 3 months; -20°C 2 weeks.	

1. Product description:

L-701,324 is a potent and selective NMDA/glycine receptor antagonist. L-701,324 exhibits a beneficial action in the animal model of parkinsonian rigidity. Pre-treatment with L-701,324 improves pharmacosensitivity in a mouse kindling model.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMF	30.0	82.46
DMF:PBS (pH 7.2) (1:2)	0.33	0.91
DMSO	24.5	67.35

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.75 mL	13.74 mL	27.49 mL
5 mM	0.55 mL	2.75 mL	5.50 mL
10 mM	0.27 mL	1.37 mL	2.75 mL
50 mM	0.06 mL	0.27 mL	0.55 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

TBD

In vivo study

1. Kawai N, Sakai N, Okuro M, Karakawa S, Tsuneyoshi Y, Kawasaki N, Takeda T, Bannai M, Nishino S. The sleep-promoting and hypothermic effects of glycine are mediated by NMDA receptors in the suprachiasmatic nucleus. *Neuropsychopharmacology*. 2015 May;40(6):1405-16. doi: 10.1038/npp.2014.326. Epub 2014 Dec 23. PMID: 25533534; PMCID: PMC4397399.

2. Liu L, Ji CH, Wang Y, Zhao J, Liu Y, Tang WQ, Gu JH, Jiang B. Antidepressant-like activity of L-701324 in mice: A behavioral and neurobiological characterization. *Behav Brain Res*. 2021 Feb 5;399:113038. doi: 10.1016/j.bbr.2020.113038. Epub 2020 Dec 1. PMID: 33276033.

7. Bioactivity

Biological target:

L-701324 is a potent, orally active NMDA receptor antagonist that antagonizes the activity of the NMDA receptor by blocking its glycine B binding site. L-701324 binds with high affinity to rat brain membranes (IC₅₀=2 nM).

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In vitro activity

TBD

In vivo activity

This study investigated the site of action and sleep-promoting mechanisms of glycine in rats. Microinjection of D-serine into the SCN also increased CBF (cutaneous blood flow), whereas these effects were blocked in the presence of L-701324.

Reference: Neuropsychopharmacology. 2015 May;40(6):1405-16. <https://pubmed.ncbi.nlm.nih.gov/25533534/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.