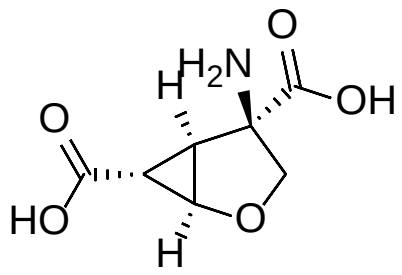
Product data sheet

MedKoo Cat#: 532164 Name: LY379268 CAS: 191471-52-0 Chemical Formula: $C_7H_9NO_5$ Exact Mass: 187.0481 Molecular Weight: 187.151	
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:
LY-379,268 is a potent and selective agonist for the group II metabotropic glutamate receptors (mGluR2/3). LY-379,268 has sedative, neuroprotective, anti-addictive and anticonvulsant effects in animals, and blocks the effects of PCP and DOI, which has led to research as antipsychotic drugs for the treatment of schizophrenia in animals.

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
Water	2.87	15.34

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	5.34 mL	26.72 mL	53.43 mL
5 mM	1.07 mL	5.34 mL	10.69 mL
10 mM	0.53 mL	2.67 mL	5.34 mL
50 mM	0.11 mL	0.53 mL	1.07 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

1. Turati J, Ramírez D, Carniglia L, Saba J, Caruso C, Quarleri J, Durand D, Lasaga M. Antioxidant and neuroprotective effects of mGlu3 receptor activation on astrocytes aged in vitro. Neurochem Int. 2020 Nov;140:104837. doi: 10.1016/j.neuint.2020.104837. Epub 2020 Aug 25. PMID: 32858088.

2. Hu YJ, Sun Q, Zhang WH, Huo YJ, Xu CJ, Liu JF. Specific activation of mGlu2 induced IGF-1R transactivation in vitro through FAK phosphorylation. Acta Pharmacol Sin. 2019 Apr;40(4):460-467. doi: 10.1038/s41401-018-0033-7. Epub 2018 Jun 26. PMID: 29946167; PMCID: PMC6461959.

In vivo study

1. Sharpe EF, Kingston AE, Lodge D, Monn JA, Headley PM. Systemic pre-treatment with a group II mGlu agonist, LY379268, reduces hyperalgesia in vivo. Br J Pharmacol. 2002 Mar;135(5):1255-62. doi: 10.1038/sj.bjp.0704583. PMID: 11877334; PMCID: PMC1573247.

2. Bond A, Jones NM, Hicks CA, Whiffin GM, Ward MA, O'Neill MF, Kingston AE, Monn JA, Ornstein PL, Schoepp DD, Lodge D, O'Neill MJ. Neuroprotective effects of LY379268, a selective mGlu2/3 receptor agonist: investigations into possible mechanism of action in vivo. J Pharmacol Exp Ther. 2000 Sep;294(3):800-9. PMID: 10945827.

Product data sheet

7. Bioactivity

Biological target:

LY379268 is a potent, selective and brain-penetrant mGlu2/3R agonist with EC_{50} values of 2.69 nM (mGlu2) and 4.48 nM (mGlu3).

In vitro activity

This study aimed to determine whether LY379268, an mGlu3R agonist, exerts an antioxidant effect on aged cultured rat astrocytes. Treatment of 9w astrocytes with LY379268 resulted in an increase in mGlu3R and Nrf2 protein levels and SOD activity, and decreased mitochondrial ROS levels and apoptosis.

Reference: Neurochem Int. 2020 Nov;140:104837. https://pubmed.ncbi.nlm.nih.gov/32858088/

In vivo activity

In testing the drug in rats as an analgesic to acute noxious stimuli, LY379268 (in doses up to 3 mg kg(-1) i.p.) did not affect withdrawal latencies to either mechanical or thermal stimulation. In a model of mouse tail withdrawal to warm water, LY379268 (12 mg kg(-1) i.p.), given before a subcutaneous tail injection of capsaicin, reduced the subsequent neurogenic hyperalgesia.

Reference: Br J Pharmacol. 2002 Mar;135(5):1255-62. https://pubmed.ncbi.nlm.nih.gov/11877334/

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.