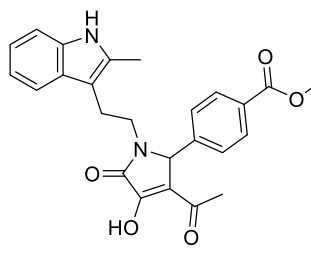


# Product data sheet



MedKoo Cat#: 555181 Name: PYD-106 CAS#: 1560894-05-4 Chemical Formula: C <sub>25</sub> H <sub>24</sub> N <sub>2</sub> O <sub>5</sub> Exact Mass: 432.1685 Molecular Weight: 432.48	
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:

PYD-106 is a GluN2C-selective NMDA receptor positive allosteric modulator.

## 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
To be determined	To be determined	To be determined

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.31 mL	11.56 mL	23.12 mL
5 mM	0.46 mL	2.31 mL	4.62 mL
10 mM	0.23 mL	1.16 mL	2.31 mL
50 mM	0.05 mL	0.23 mL	0.46 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

- Khatri A, Burger PB, Swanger SA, Hansen KB, Zimmerman S, Karakas E, Liotta DC, Furukawa H, Snyder JP, Traynelis SF. Structural determinants and mechanism of action of a GluN2C-selective NMDA receptor positive allosteric modulator. *Mol Pharmacol.* 2014 Nov;86(5):548-60. doi: 10.1124/mol.114.094516. Epub 2014 Sep 9. PMID: 25205677; PMCID: PMC4201136.
- Zhang J, Zhang M, Wang Q, Wen H, Liu Z, Wang F, Wang Y, Yao F, Song N, Kou Z, Li Y, Guo F, Zhu S. Distinct structure and gating mechanism in diverse NMDA receptors with GluN2C and GluN2D subunits. *Nat Struct Mol Biol.* 2023 May;30(5):629-639. doi: 10.1038/s41594-023-00959-z. Epub 2023 Mar 23. PMID: 36959261.

In vivo study

To be determined

## 7. Bioactivity

Biological target:

PYD-106 enhances NR2C subunit-containing NMDA receptor responses in HEK293 cells (EC<sub>50</sub> = 13 μM) and selectively targets these receptors over others like NR2A, NR2B, and NR2D.

In vitro activity

# Product data sheet



In cultured HEK-293 cells, PYD-106, at a concentration of 30  $\mu$ M, showed no effects on receptor types such as GluN2A, GluN2B, and GluN2D, as well as AMPA and kainate receptors. When coapplied with glutamate and glycine, PYD-106 at 50  $\mu$ M significantly enhanced the responses of GluN1/GluN2C NMDA receptors in HEK-293 cells, indicating its positive allosteric modulatory effects.

Reference: Mol Pharmacol. 2014 Nov;86(5):548-60. <https://pubmed.ncbi.nlm.nih.gov/25205677/>

In vivo activity

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To be determined

*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.*