

Product Name: MNI-caged-NMDA

Catalog No.: 2224

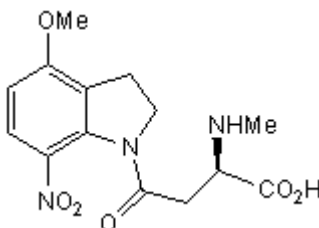
Batch No.: 4

CAS Number: 1227675-52-6

IUPAC Name: (R)- α -Methylamino-2,3-dihydro-4-methoxy-7-nitro- γ -oxo-1*H*-indole-1-butanoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₁₇N₃O₆·1½H₂O
Batch Molecular Weight: 350.32
Physical Appearance: Off White solid
Solubility: water to 5 mM with gentle warming
DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99% purity
Chiral HPLC: Shows >99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	48	5.75	11.99
Found	48.25	5.51	11.97

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

NMDA (Cat.No. 0114) caged with the photosensitive 4-methoxy-7-nitroindolinyl group. Stoichiometrically releases chirally pure NMDA. Suitable for uncaging with 300-380 nm excitation. Improved localization can be achieved by uncaging at 405 nm (with mM concentration of caged compound in the bath solution). Exhibits rapid uncaging rate relative to ionotropic glutamate receptor activation.

Physical and Chemical Properties:

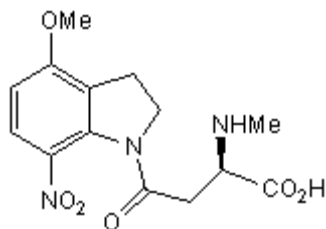
Batch Molecular Formula: C₁₄H₁₇N₃O₆.1 ½H₂O

Batch Molecular Weight: 350.32

Physical Appearance: Off White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 5 mM with gentle warming
DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Licensing Information:

Sold under license from the UK Medical Research Council

References:

Palma-Cerda et al (2012) New caged neurotransmitter analogs selective for glutamate receptor sub-types based on methoxynitroindoline and nitrophenylethoxycarbonyl caging groups. *Neuropharmacology*. **63** 624. PMID: 22609535.

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