

Product Name: MNI-caged-D-aspartate

Catalog No.: 2277

Batch No.: 1

CAS Number: 845555-94-4

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₃H₁₅N₃O₆·³/₄H₂O

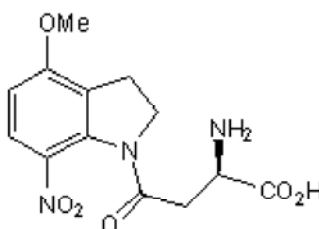
Batch Molecular Weight: 322.78

Physical Appearance: Yellow solid

Solubility: water to 5 mM
DMSO to 10 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.31 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])

HPLC: Shows >99.5% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	48.37	5.15	13.02
Found	48.68	5.11	12.98

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

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Description:

D-aspartate caged with the photosensitive 4-methoxy-7-nitroindoliny group. Photolyzed by UV light with a quantum efficiency of 0.09 at pH 7.4. Agonist at NMDA receptors and EAAT substrate.

Physical and Chemical Properties:

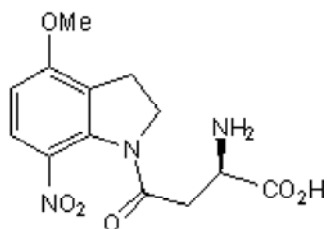
Batch Molecular Formula: C₁₃H₁₅N₃O₆· $\frac{3}{4}$ H₂O

Batch Molecular Weight: 322.78

Physical Appearance: Yellow solid

Minimum Purity: >98%

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

DMSO to 10 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:

Huang *et al* (2005) Synthesis and characterization of 4-methoxy-7-nitroindoliny-D-aspartate, a caged compound for selective activation of glutamate transporters and *N*-methyl-D-aspartate receptors in brain tissue. *Biochemistry* **44** 3316. PMID: 15736942.

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