Datasheet

**Product overview**

**Name**
MNI-caged-L-Glutamate

**Cat No**
HB0423

**Short description**
Caged glutamate that rapidly and efficiently releases glutamate when photolysed

**Biological description**
Caged glutamate that rapidly and efficiently releases glutamate when photolysed (300 - 380 nm excitation).

Peak absorption is at 340 nm, the quantum yield is 0.085 and photo release following a light pulse has a half-time of 200 ns.

MNI-caged-L-Glutamate is inactive at glutamate receptors and transporters at mM concentrations but does interfere with synaptic activation of GABA\(_A\) receptors (IC\(_{50}\) = ~0.5 mM).

**Alternative names**
MNI-Glu, Caged glutamate, MNI-Glutamate,

**Biological action**
Activator

**Purity**
>98%

**Customer comments**

*We are very pleased to have such a company like yours that offers products like MNI-caged-glutamate (MNI-Glu) at a very good price and still with a high quality. So we will rate your product 5 stars!* [Verified customer]

*We confirmed Hello Bio MNI-caged-glutamate works very well for our two-photon uncaging experiment. I would be very happy to recommend your MNI glutamate.* [Verified customer]

*Works very well. We will be buying MNI-caged glutamate from Hello Bio from now on. We are happy that MNI-caged glutamate from Hello Bio works well for slice electrophysiological recordings in our focal laser stimulation experiments with DPSS laser (350nm).* [Verified customer]

**Images**
Properties

**Chemical name**  
(S)-α-Amino-2,3-dihydro-4-methoxy-7-nitro-δ-oxo-1H-indole-1-pentanoic acid

**Molecular Weight**  
323.3

**Chemical structure**

![Chemical structure diagram](image)

**Molecular Formula**  
C₁₄H₁₇N₃O₆

**CAS Number**  
295325-62-1

**PubChem identifier**  
6604871

**SMILES**  
COC1=C2CCN(C=C(C1)[N+][O-]O)C=OCC[C@@H](C=O)O)N

**Source**  
Synthetic

**InChi**  
1S/C14H17N3O6/c1-23-11-4-3-10(17(21)22)13-8(11)6-7-16(13)12(18)5-2-9(15)14(19)20/h3-4,9H,2,5-7,15H2,1H3,(H,19,20)/t9-/m0/s1

**InChiKey**  
GXIDBZKXUNITQ-VIFPVBQESA-N

**Appearance**  
Yellow solid

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**Storing and Using Your Product**

**Storage instructions**  
-20°C (protect from light)

**Solubility overview**  
Soluble in water (50mM) with gentle warming

**Handling**

- This compound is light sensitive; exposure to light may affect compound performance. We therefore recommend storing the material in the dark and protecting from light.
- Although stable to hydrolysis and soluble in water (50 mM) it is often necessary to warm stock solutions after thawing.

**Important**  
This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

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**References for MNI-caged-L-Glutamate**
Photochemical and pharmacological evaluation of 7-nitroindolinyl- and 4-methoxy-7-nitroindolinyl-amino acids as novel, fast caged neurotransmitters.


PubMedID: 11640955

Comparative analysis of inhibitory effects of caged ligands for the NMDA receptor.


PubMedID: 15652611

New caged neurotransmitter analogs selective for glutamate receptor sub-types based on methoxynitroindoline and nitrophenylethoxycarbonyl caging groups.


PubMedID: 22609535