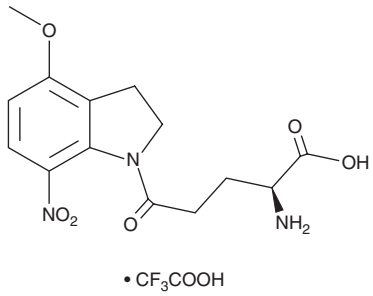
PRODUCT INFORMATION

MNI-caged-L-glutamate (trifluoroacetate salt)

Item No. 19532

CAS Registry No.:	2226362-29-2
Formal Name:	(αS)-α-amino-2,3-dihydro-4-methoxy-7-nitro-δ-oxo-1H-indole-1-pentanoic acid, 2,2,2-trifluoroacetate
MF:	$C_{14}H_{17}N_3O_6 \bullet CF_3COOH$
FW:	437.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 213, 249, 304 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

MNI-caged-L-glutamate (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the MNI-caged-L-glutamate (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. MNI-caged-L-glutamate (trifluoroacetate salt) is soluble in the organic solvent ethanol at a concentration of approximately 0.25 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of MNI-caged-L-glutamate (trifluoroacetate salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of MNI-caged-L-glutamate (trifluoroacetate salt) in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

MNI-caged-L-glutamate is a form of glutamate linked to a 4-methoxy-7-nitroindolinyl (MNI) photoprotecting group that is pharmacologically inactive at neuronal glutamate receptors (up to mM concentrations).[1] Upon exposure to light (300 - 380 nm excitation), L-glutamate is cleaved of MNI and released within submicroseconds.[1] This compound can be used to investigate the mechanisms of fast synaptic glutamate receptors *in situ*.

Reference

1. Canepari, M., Nelson, L., Papageorgiou, G., *et al.* Photochemical and pharmacological evaluation of 7-nitroindolinyl-and 4-methoxy-7-nitroindolinyl-amino acids as novel, fast caged neurotransmitters. *J. Neurosci. Methods* **112(1)**, 29-42 (2001).

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