

# PRODUCT INFORMATION



**L-655,708**

Item No. 30322

**CAS Registry No.:** 130477-52-0

**Formal Name:** (13aS)-11,12,13,13a-tetrahydro-7-methoxy-9-oxo-9H-imidazo[1,5-a]pyrrolo[2,1-c][1,4]benzodiazepine-1-carboxylic acid, ethyl ester

**MF:** C<sub>18</sub>H<sub>19</sub>N<sub>3</sub>O<sub>4</sub>

**FW:** 341.4

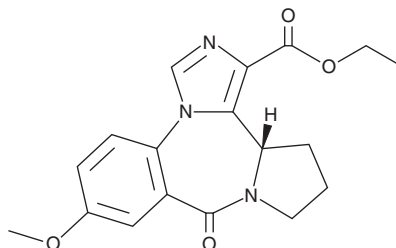
**Purity:** ≥98%

**UV/Vis.:** λ<sub>max</sub>: 248 nm

**Supplied as:** A 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

L-655,708 is supplied as a solid. A stock solution may be made by dissolving the L-655,708 in the solvent of choice, which should be purged with an inert gas. L-655,708 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of L-655,708 in these solvents is approximately 1 and 2 mg/ml, respectively.

L-655,708 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, L-655,708 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. L-655,708 has a solubility of approximately 0.04 mg/ml in a 1:20 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

L-655,708 is a ligand for α<sub>5</sub> subunit-containing GABA<sub>A</sub> receptors that has nootropic activity.<sup>1</sup> It selectively binds to α<sub>5</sub> subunit-containing GABA<sub>A</sub> receptors over α<sub>1</sub>, α<sub>2</sub>, or α<sub>3</sub> subunit-containing receptors (K<sub>i</sub>s = 1, 70, 48, and 31 nM, respectively, for recombinant human receptors). L-655,708 (10 nM) increases the amplitude of extracellular post-synaptic potentials (EPSPs) in mouse hippocampal slices. *In vivo*, L-655,708 (1.5 mg/animal) decreases the latency to find the platform and increases time spent in the target quadrant in the Morris water maze in mice.

## Reference

1. Atack, J.R., Bayley, P.J., Seabrook, G.R., *et al.* L-655,708 enhances cognition in rats but is not proconvulsant at a dose selective for α<sub>5</sub>-containing GABA<sub>A</sub> receptors. *Neuropharmacology* **51(6)**, 1023-1029 (2006).

### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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