

PRODUCT INFORMATION



ITEM 1754

Item No. 31192

CAS Registry No.: 162831-31-4

Formal Name: N¹-(tricyclo[3.3.1.1^{3,7}]dec-1-ylmethyl)-1,5-pentanediamine, dihydrobromide

MF: C₁₆H₃₀N₂ • 2HBr

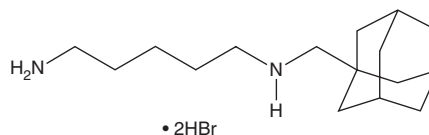
FW: 412.3

Purity: ≥98%

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

ITEM 1754 is supplied as a solid. A stock solution may be made by dissolving the ITEM 1754 in the solvent of choice, which should be purged with an inert gas. ITEM 1754 is slightly soluble (0.1-1 mg/ml) in DMSO.

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 ITEM 1754 can be prepared by directly dissolving the solid in aqueous buffers. ITEM 1754 is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

ITEM 1754 is an AMPA receptor antagonist.¹ It inhibits inward currents in whole-cell patch-clamp assays using *X. laevis* oocytes (IC₅₀ = 6 μM). ITEM 1754 (0.5 or 3 mg/kg) inhibits kainate-induced tonic-clonic seizures and reduces mortality in mice.² It increases movement activity but does not reduce freezing time in a mouse model of centrifugation-induced dyskinesia when administered at a dose of 5 mg/kg.³

References

1. Magazanik, L.G., Buldakova, S.L., Samoilova, M.V., *et al.* Block of open channels of recombinant AMPA receptors and native AMPA/kainate receptors by adamantane derivatives. *J. Physiol.* **505**(Pt 3), 655-663 (1997).
2. Serdyuk, S.E. and Gmiro, V.E. Combined blockade of α3β4 nicotinic acetylcholine receptors and GluR1 AMPA receptors in rats prevents kainate-induced tonic-clonic seizures. *Bull. Exp. Biol. Med.* **143**(5), 611-613 (2007).
3. Lukomsкая, N.Y., Zhabko, E.P., and Gmiro, V.E. The involvement of glutamatergic transmission in the mechanism of movement disorders induced by reversible rotation of white mice. *Neurosci. Behav. Physiol.* **30**(5), 543-546 (2000).

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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