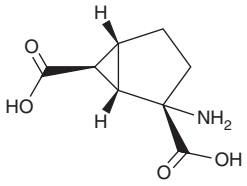
PRODUCT INFORMATION

LY354740

Item No. 24215

CAS Registry No.:	176199-48-7
Formal Name:	(1S,2S,5R,6S)-2-amino-bicyclo[3.1.0]hexane-2,6-dicarboxylic acid
MF:	$C_8H_{11}NO_4$
FW:	185.2
Purity:	≥95%
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

LY354740 is supplied as a crystalline solid. Aqueous solutions of LY354740 can be prepared by directly dissolving the crystalline solid in aqueous buffers. LY354740 is slightly soluble in PBS and 0.1 M sodium hydroxide. We do not recommend storing the aqueous solution for more than one day.

Description

LY354740 is an agonist of the group II metabotropic glutamate receptor (mGluR) subtypes mGluR2 and mGluR3 (K_is = 99 and 94 nM, respectively).[1] It inhibits forskolin-stimulated cAMP accumulation in cells expressing human mGluR2 and mGluR3 (EC_{50}s = 5.1 and 24.3 nM, respectively) and is selective for mGluR2 and mGluR3 over mGluR4, mGluR7, mGluR1a, and mGluR5a (EC_{50}s = >100 µM).[2,3] LY354740 suppresses electrically stimulated excitatory postsynaptic potentials (EPSPs) in rat striatal neurons (EC_{50} = 20 nM) and excitatory postsynaptic currents (EPSCs) induced by serotonin (Item No. 14332) in rat medial prefrontal cortex *in vitro* (EC_{50} = 89.1 nM).[1,4] LY354740 (5 mM) iontophoretically ejected into the ventrobasal thalamus of rats reduces sensory inhibition by 20% compared to control in an alternating test, condition-test paradigm.[5] It attenuates the effects of PCP on working memory, stereotypy, locomotion, and cortical glutamate efflux in a rat model of schizophrenia when administered at a dose of 10 mg/kg.[6] LY354740 also shows efficacy in animal models of anxiety, epilepsy, and withdrawal from nicotine and morphine.[1,7]

References

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4. Marek, G.J., Wright, R.A., Schoepp, D.D., *et al. J. Pharmacol. Exp. Ther.* **292(1)**, 76-87 (2000).
5. Copeland, C.S., Neale, S.A., and Salt, T.E. *Neuropharmacology* **66**, 133-142 (2013).
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7. Schoepp, D.D., Jane, D.E., and Monn, J.A. *Neuropharmacology* **38(10)**, 1431-1476 (1999).

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