产品名称：

(1R,4S,5S,6S)-4-[[(2S)-2-Amino-4-(methylthio)-1-oxobutyl]amino]-2-thiabicyclo[3.1.0]hexane-4,6-dicarboxylic acid 2,2-dioxide

产品别名：**LY404039**

生物活性：

Description

LY404039 is an inhibitor for mGluR1(Ki=149 nM) and mGluR2(Ki= 92 nM), which can also inhibit dopamine receptor. IC50 Value:149 nM(Ki for mGlu2); 92 nM(Ki for mGlu3)[1] Target: mGluR1; mGluR2 Metabotropic glutamate (mGlu) receptors have been shown to mediate a number of behaviors including emotionality and responsivity to stress as demonstrated by efficacy in preclinical and clinical studies. in vitro: Similar to LY354740, LY404039 is a nanomolar potent agonist at recombinant human mGlu2 and mGlu3 receptors (K(i) = 149 and 92, respectively) and in rat neurons expressing native mGlu2/3 receptors (Ki = 88). LY404039 is highly selective for mGlu2/3 receptors, showing more than 100-fold selectivity for these receptors, versus ionotropic glutamate receptors, glutamate transporters, and other receptors targeted by known anxiolytic and antipsychotic medications[1]. in vivo: LY404039 attenuated amphetamine- and phencyclidine-induced hyperlocomotion (3-30 and 10 mg/kg, respectively). LY404039 (3-10 mg/kg) inhibited conditioned avoidance responding. LY404039 also reduced fear-potentiated startle in rats (3-30 microg/kg) and marble burying in mice (3-10 mg/kg), indicating anxiolytic-like effects. Importantly, LY404039 did not produce sedative effects or motor impairment as measured by rotarod performance and lack of escape failures in the conditioned avoidance task (at doses up to 30 and 10 mg/kg, respectively). LY404039 (10 mg/kg) also increased dopamine and serotonin release/turnover in the prefrontal cortex [3]. Clinical trial: An Absolute Bioavailability Study of LY-2140023 and LY-404039 in Healthy Subjects Using the Intravenous Tracer Method. Phage1

Solvent&Solubility

In Vitro:

DMSO : 3.84 mg/mL (16.33 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.2515 mL	21.2576 mL	42.5152 mL
	5 mM	0.8503 mL	4.2515 mL	8.5030 mL
	10 mM	0.4252 mL	2.1258 mL	4.2515 mL

*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。

储备液的保存方式和期限：-80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。

References

[1]. Rorick-Kehn LM, Johnson BG, Burkey JL, Pharmacological and pharmacokinetic properties of a structurally novel, potent, and selective metabotropic glutamate 2/3 receptor agonist: in vitro characterizationofagonist(-)-(1R,4S,5S,6S)-4-amino-2-sulfonylbicyclo[3.1.0]-hexane-4,6-dicarboxylic acid (LY404039). J Pharmacol Exp Ther. 2007 Apr;321(1):308-17.

[2]. Seeman P. An agonist at glutamate and dopamine D2 receptors, LY404039. Neuropharmacology. 2013 Mar;66:87-8.

[3]. Rorick-Kehn LM, Johnson BG, Knitowski KM, In vivo pharmacological characterization of the structurally novel, potent, selective mGlu2/3 receptor agonistLY404039 in animal models of psychiatric

	disorders. Psychopharmacology (Berl). 2007 Jul;193(1):121-36.