

### mGlu Antagonists Kit ab120322

#### Overview

<b>Product name</b>	mGlu Antagonists Kit
<b>Specificity</b>	A collection of 6 antagonists for mGlu receptor subtypes. Products are freeze-dried to an exact weight so that addition of 1 ml or 0.5 ml of solvent provides a stock solution of 5 mM or 10 mM, respectively. The kit contains LY 341495 sodium salt ( <a href="#">ab120400</a> ), (R,S)-MCPG sodium salt ( <a href="#">ab120252</a> ), LY 367385 sodium salt ( <a href="#">ab120418</a> ), YM 298198 hydrochloride ( <a href="#">ab120015</a> ), MTEP hydrochloride ( <a href="#">ab120035</a> ) and MMPIP ( <a href="#">ab120245</a> ).
<b>Product overview</b>	<p>A collection of 6 antagonists for mGlu receptor subtypes. Products are freeze-dried to an exact weight so that addition of 1 ml or 0.5 ml of solvent provides a stock solution of 5 mM or 10 mM, respectively. The kit contains LY 341495 sodium salt (<a href="#">ab120400</a>), (R,S)-MCPG sodium salt (<a href="#">ab120252</a>), LY 367385 sodium salt (<a href="#">ab120418</a>), YM 298198 hydrochloride (<a href="#">ab120015</a>), MTEP hydrochloride (<a href="#">ab120035</a>) and MMPIP (<a href="#">ab120245</a>).</p> <p>Receptor</p> <p>Description</p> <p><b>All mGlu</b> (mGlu<sub>1,2,3,4,5,6,7,8</sub>)</p> <p><b>LY 341495 sodium salt:</b></p> <p>Very selective nanomolar potent antagonist for group II mGlu receptors. Also a relatively potent antagonist for group III mGlu receptors at high nanomolar to low micromolar concentrations. K<sub>d</sub> values are 1.67, 0.75, 31.6, 72.7, 14 nM at human mGlu<sub>2</sub>, mGlu<sub>3</sub>, mGlu<sub>6</sub>, mGlu<sub>7a</sub>, and human mGlu<sub>8a</sub> receptors, respectively. IC<sub>50</sub> values are 7.8, 8.2 and 22 μM for mGlu<sub>1a</sub>, mGlu<sub>5a</sub> and mGlu<sub>4</sub> receptors, respectively. Readily brain penetrant and active <i>in vivo</i>.</p> <p><b>Suggested Solvent:</b> Water</p> <p><b>Group I &amp; II</b> (R,S)-MCPG sodium salt:</p> <p>Group I / group II metabotropic glutamate receptor antagonist. Water soluble form.</p> <p><b>Suggested Solvent:</b> Water</p> <p><b>mGlu<sub>1</sub></b></p> <p><b>LY 367385 sodium salt:</b></p> <p>Potent, selective mGlu<sub>1a</sub> antagonist. Neuroprotective and anticonvulsant <i>in vivo</i>.</p> <p><b>Suggested Solvent:</b> Water</p>

### mGlu<sub>1</sub>

#### YM298198 hydrochloride:

Potent, selective, water-soluble, non-competitive mGlu<sub>1</sub> antagonist (IC<sub>50</sub> = 16 nM) Selective over mGlu<sub>2,3,4,5,6</sub> and 7 and ionotropic receptors (IC<sub>50</sub> > 10 µM). Orally active analgesic *in vivo*.

**Suggested Solvent:** Water

### mGlu<sub>5</sub>

#### MTEP hydrochloride:

Brain penetrant, potent, selective and non-competitive mGlu<sub>5</sub> receptor antagonist (IC<sub>50</sub> = 5 nM in Ca<sup>2+</sup>-flux assay; K<sub>i</sub> = 16 nM). *In vivo* anxiolytic, devoid of side effects seen with MPEP and benzodiazepines.

**Suggested Solvent:** Water

### mGlu<sub>7</sub>

#### MMPIP:

Potent, selective allosteric antagonist at mGlu<sub>7</sub> receptors. Inhibits agonist-induced intracellular calcium mobilisation and cAMP accumulation (IC<sub>50</sub> values are 26 and 610 nM). Also displays intrinsic activity; increasing forskolin-induced cAMP accumulation in the absence of an agonist. Exhibits no significant activity at mGluR1, mGluR2, mGluR3, mGluR4, mGluR5, and mGluR8.

**Suggested Solvent:** DMSO

### Notes

Providing storage is as stated on the product vial and the vial is kept tightly sealed, the product can be stored for up to 6 months.

Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one week. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.

KIT

### Properties

**Storage instructions** Store at -20°C. Please refer to protocols.

Components	1 kit
<u>ab120252 - (R,S)-MCPG sodium salt</u>	1 vial
<u>ab120400 - LY 341495 sodium salt</u>	1 vial
<u>ab120418 - LY 367385 sodium salt</u>	1 vial
<u>ab120245 - MMPIP</u>	1 vial
<u>ab120035 - MTEP hydrochloride</u>	1 vial
<u>ab120015 - YM298198 hydrochloride</u>	1 vial

## Relevance

Metabotropic Glutamate Receptor contains a Periplasmic Binding Protein Type 1 region, which belongs to Type 1 periplasmic binding fold superfamily. This model and hierarchy represent the ligand binding domains of the LacI family of transcriptional regulators, periplasmic binding proteins of the ABC-type transport systems.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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