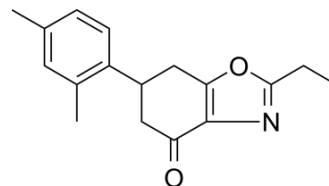


## ADX71743

Cat. No.:	HY-110278
CAS No.:	1431641-29-0
Molecular Formula:	C <sub>17</sub> H <sub>19</sub> NO <sub>2</sub>
Molecular Weight:	269.34
Target:	mGluR
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	ADX71743 is a highly selective, noncompetitive and brain-penetrant metabotropic glutamate receptor 7 negative allosteric modulator (mGlu7 NAM). ADX71743 has anxiolytic-like activity <sup>[1][2]</sup> .												
<b>IC<sub>50</sub> &amp; Target</b>	mGlu7												
<b>In Vitro</b>	<p>ADX71743 has an IC<sub>50</sub> of 300 nM in-house cell lines. Pretreatment of ADX71743 (3 μM; for 20 min) before high-frequency stimulation (HFS) results in an almost complete blockade of LTP induction<sup>[1]</sup>.</p> <p>ADX71743 (0.1, 10 μM) reverses L-AP4-induced depression of synaptic transmission and results in a concentration-dependent reversal of the L-AP4-induced depression. 0.1 μM ADX71743 reverses the effects of L-AP4 by 11% and 10 μM results in a 20% reversal<sup>[2]</sup>.</p> <p>ADX71743 can against an EC<sub>80</sub> of glutamate (IC<sub>50</sub> of 22 nM) as well as against an EC<sub>80</sub> of L-AP4 (IC<sub>50</sub> of 125 nM)<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>												
<b>In Vivo</b>	<p>ADX71743 (50, 100, 150 mg/kg; SC) results in robust reductions in numbers of buried marbles to near maximal levels at lower doses (50 and 100 mg/kg)<sup>[2]</sup>.</p> <p>ADX71743 (12.5, 100 mg/kg for mice and 100 mg/kg for rat; SC) has a T<sub>1/2</sub> of 0.68, 0.40 hours, a C<sub>max</sub> of 1380, 12766 ng/ml of 12.5 mg/kg and 100 mg/kg in mice<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Adult male C57Bl6/J mice (24-30 g)<sup>[2]</sup></td> </tr> <tr> <td>Dosage:</td> <td>50, 100, 150 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>SC</td> </tr> <tr> <td>Result:</td> <td>Resulted in robust reductions in numbers of buried marbles to near maximal levels at lower doses (50 and 100 mg/kg).</td> </tr> </table> <table border="1"> <tr> <td>Animal Model:</td> <td>Adult male C57Bl6/J mice (24-30 g) and Sprague-Dawley rats (250-350 g)<sup>[2]</sup></td> </tr> <tr> <td>Dosage:</td> <td>12.5, 100 mg/kg for mice and 100 mg/kg for rat (Pharmacokinetic Analysis)</td> </tr> </table>	Animal Model:	Adult male C57Bl6/J mice (24-30 g) <sup>[2]</sup>	Dosage:	50, 100, 150 mg/kg	Administration:	SC	Result:	Resulted in robust reductions in numbers of buried marbles to near maximal levels at lower doses (50 and 100 mg/kg).	Animal Model:	Adult male C57Bl6/J mice (24-30 g) and Sprague-Dawley rats (250-350 g) <sup>[2]</sup>	Dosage:	12.5, 100 mg/kg for mice and 100 mg/kg for rat (Pharmacokinetic Analysis)
Animal Model:	Adult male C57Bl6/J mice (24-30 g) <sup>[2]</sup>												
Dosage:	50, 100, 150 mg/kg												
Administration:	SC												
Result:	Resulted in robust reductions in numbers of buried marbles to near maximal levels at lower doses (50 and 100 mg/kg).												
Animal Model:	Adult male C57Bl6/J mice (24-30 g) and Sprague-Dawley rats (250-350 g) <sup>[2]</sup>												
Dosage:	12.5, 100 mg/kg for mice and 100 mg/kg for rat (Pharmacokinetic Analysis)												

Administration:	SC
Result:	Had a $T_{1/2}$ of 0.68, 0.40 hours, a $C_{max}$ of 1380, 12766 ng/ml of 12.5 mg/kg and 100 mg/kg in mice. Had a $T_{1/2}$ of 1.5 hours, a $C_{max}$ of 16800 ng/ml of 100 mg/kg in rat.

## REFERENCES

[1]. Rebecca Klar, et al. Activation of Metabotropic Glutamate Receptor 7 Is Required for Induction of Long-Term Potentiation at SC-CA1 Synapses in the Hippocampus. *J Neurosci*. 2015 May 13;35(19):7600-15.

[2]. Mikhail Kalinichev, et al. ADX71743, a Potent and Selective Negative Allosteric Modulator of Metabotropic Glutamate Receptor 7: In Vitro and in Vivo Characterization. *Pharmacol Exp Ther*. 2013 Mar;344(3):624-36.

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA