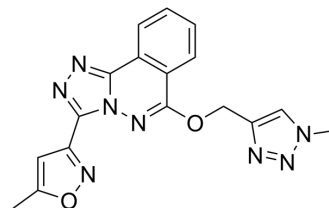


## α5IA

<b>Cat. No.:</b>	HY-116622
<b>CAS No.:</b>	215874-86-5
<b>Molecular Formula:</b>	C <sub>17</sub> H <sub>14</sub> N <sub>8</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	362.35
<b>Target:</b>	GABA Receptor
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling
<b>Storage:</b>	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



## BIOLOGICAL ACTIVITY

<b>Description</b>	α5IA (L-822179) is a selective α5 GABAA receptor inverse agonist with neuroprotective potential <sup>[1]</sup> .	
<b>In Vitro</b>	α5IA (100 nM, 5 days) can significantly reduce Aβ 1-42-induced cell death in primary mouse hippocampal cultures <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay <sup>[1]</sup>	
	Cell Line:	Primary mouse hippocampal culture
	Concentration:	0.3 nM, 3 nM, 30 nM, 100 nM
	Incubation Time:	24 h
	Result:	Significantly reduced Aβ 1-42-induced cell death by 13% at a concentration of 100 nM. Significantly decreased the expression of GABAAR α5 subunit.
<b>In Vivo</b>	α5IA (5 mg/kg, i.p., once) can sustain restoration of spatial learning ability in Ts65Dn mice, and long-term recognition of spatial memory deficits <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

## REFERENCES

[1]. Chitra Vinnakota, et al. An 5 GABAA Receptor Inverse Agonist, 5IA, Attenuates Amyloid Beta-Induced Neuronal Death in Mouse Hippocampal Cultures. *Int J Mol Sci.* 2020 May 6;21(9):3284.

[2]. Arnaud Duchon, et al. Long-lasting correction of in vivo LTP and cognitive deficits of mice modelling Down syndrome with an α5-selective GABAA inverse agonist. *Br J Pharmacol.* 2020 Mar;177(5):1106-1118.

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

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