Afizagabar

Cat. No.: HY-120051

CAS No.: 1398496-82-6

Molecular Formula: $C_{19}H_{12}FN_3O_2S$

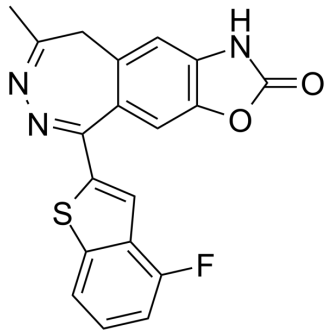
Molecular Weight: 365.38

Target: GABA Receptor

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 6.25 mg/mL (17.11 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7369 mL	13.6844 mL	27.3688 mL
	5 mM	0.5474 mL	2.7369 mL	5.4738 mL
	10 mM	0.2737 mL	1.3684 mL	2.7369 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Afizagabar (S44819) is a first-in-class, competitive, and selective antagonist at the GABA-binding site of the α5-GABAAR, with an IC_{50} of 585 nM for α5β2γ2 and a K_i of 66 nM for α5β3γ2. Afizagabar enhances hippocampal synaptic plasticity and exhibits pro-cognitive efficacy[1].

In Vitro

Afizagabar (S44819) is a competitive α5-GABAAR antagonist (Kb=221 nM). Afizagabar selectively inhibits extrasynaptic α5-GABAARs of mouse CA1 pyramidal neurons[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Afizagabar (1 and 3 mg/kg; i.p.) significantly diminishes the marked increase in total errors induced by Scopolamine[1].

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Animal Model:	Male Sprague Dawley (SPRD) rats (In the eight-arm radial maze)[1]
Dosage:	1 and 3 mg/kg

Administration:	I.p.
Result:	Significantly diminished the marked increase in total errors induced by Scopolamine.

REFERENCES

[1]. Etherington LA, et al. Selective inhibition of extra-synaptic α5-GABAA receptors by S44819, a new therapeutic agent. Neuropharmacology. 2017;125:353-364.

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