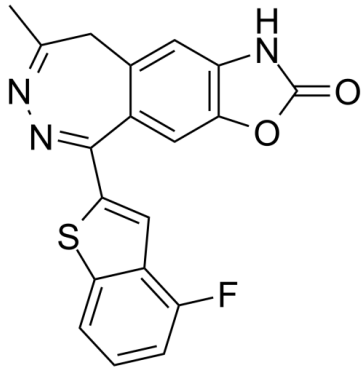
Data Sheet

Product Name:	Afizagabar
Cat. No.:	CS-0069382
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
Solubility:	DMSO : 6.25 mg/mL (17.11 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

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 (K**b**=221 nM). Afizagabar selectively inhibits extrasynaptic α5-GABAARs of mouse CA1 pyramidal neurons[1]. **In Vivo:** Afizagabar (1 and 3 mg/kg; i.p.) significantly diminishes the marked increase in total errors induced by Scopolamine[1].

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.

CAIndexNames:

2H-Oxazolo[4,5-h][2,3]benzodiazepin-2-one, 5-(4-fluorobenzo[b]thien-2-yl)-1,9-dihydro-8-methyl-

SMILES:

O=C(N1)OC2=C1C=C3CC(C)=NN=C(C4=CC5=C(F)C=CC=C5S4)C3=C2

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