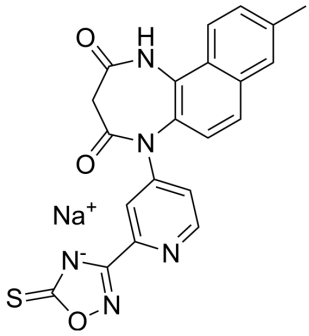
MRS4596

Cat. No.:	HY-151546
Molecular Formula:	$C_{21}H_{14}N_5NaO_3S$
Molecular Weight:	439.42
Target:	P2X Receptor
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	MRS4596 is a potent and selective P2X4 receptor antagonist with an IC_{50} value of 1.38 μM for human P2X4 receptor. MRS4596 has neuroprotective and neuro-rehabilitative activities in ischemic stroke model. MRS4596 can be used in research of ischemic stroke [1].
IC_{50} & Target	IC_{50}: 1.38 μM (human P2X4 receptor)[1]
In Vivo	MRS4719 (compound 22c; 5 mg/kg; 3 days continuous infusion with an Alzet minipump) has neuroprotective and learning- and memory-enhancing activities in a mouse middle cerebral artery occlusion (MCAO) model of ischemic stroke[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male and female young C57B/6 mice (8-12 weeks; induced transient focal cerebral ischemia by a 60 min right middle cerebral artery occlusion)[1]
Dosage:	5 mg/kg
Administration:	3 days continuous infusion with an Alzet minipump
Result:	Decreased in total hemispheric infarct volume while effects were not significant on cortical or striatal infarct volume alone.

REFERENCES

[1]. Toti KS, et al. Structure-Activity Relationship and Neuroprotective Activity of 1,5-Dihydro-2H-naphtho[1,2-b][1,4]diazepine-2,4(3H)-diones as P2X4 Receptor Antagonists. J Med Chem. 2022 Sep 23.

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

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