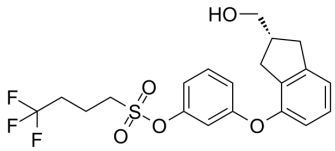
BAY 38-7271

Cat. No.:	HY-119744
CAS No.:	212188-60-8
Molecular Formula:	$C_{20}H_{21}F_3O_5S$
Molecular Weight:	430.44
Target:	Cannabinoid Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	BAY 38-7271 is selective and highly potent and cannabinoid CB_1/CB_2 receptor agonist, with K_is of 1.85 nM and 5.96 nM for recombinant human CB_1 receptor and CB_2 receptor, respectively. BAY 38-7271 has strong neuroprotective properties[1].

IC_{50} & Target	CB1	CB2
	1.85 nM (Ki)	5.96 nM (Ki)

In Vitro	BAY 38-7271 shows only minor interactions at the micromolar range with other binding sites such as adenosine A_3 receptor (IC_{50} = 7.5 μM), peripheral $GABA_A$ benzodiazepine receptor (IC_{50} = 971 nM), melatonin ML_1 receptor (IC_{50} = 3.3 μM), and at the monoamine transporter (IC_{50} = 1.7 μM)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	BAY 38-7271 (Ed_{50} = 0.02 mg/kg; i.v. and 0.5 mg/kg; i.p.) induces a potent and dose-de-pendent reduction in core body temperature[1]. BAY 38-7271 has low physical dependence liability and is not essentially different from that of other cannabinoid CB_1 receptor agonists[1]. BAY 38-7271 (1-1000 ng/kg/h; i.v. infusion; for 4 hours) shows neuroprotective efficacy in the rat SDH model[1]. BAY 38-7271 also has neuroprotective efficacy in models of transient and permanent occlusion of the middle cerebral artery and brain edema models[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Wistar rat ,TBI rat models (acute subdural hematoma, SDH)[1]
Dosage:	1 ng/kg/h, 10 ng/kg/h, 100 ng/kg/h, 1000 ng/kg/h
Administration:	Intravenous infusion, for 4 hours
Result:	Reduced the mean infarct volume.

REFERENCES

[1]. Mauler F, et al. BAY 38-7271: a novel highly selective and highly potent cannabinoid receptor agonist for the treatment of traumatic brain injury. CNS Drug Rev. 2003

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