GR-46611

Cat. No.: HY-101248

CAS No.: 185259-85-2

Molecular Formula: $C_{23}H_{27}N_3O_2$

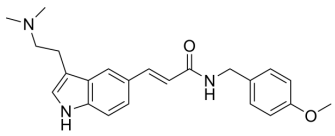
Molecular Weight: 377.48

Target: 5-HT Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (264.91 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6491 mL	13.2457 mL	26.4915 mL
	5 mM	0.5298 mL	2.6491 mL	5.2983 mL
	10 mM	0.2649 mL	1.3246 mL	2.6491 mL

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

BIOLOGICAL ACTIVITY

Description

GR-46611 is a 5-HT_{1D} receptor agonist. GR-46611 can be used in the research of bladder hyperactivity, leukemia[1][3].

IC_{50} & Target

5-HT_{1D} Receptor

In Vitro

GR-46611 (1 μM, 48 h) induces CEM cell proliferation[2].

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

Cell Proliferation Assay[2]

Cell Line:	CEM cells (human T lymphoblastic leukemia cell line)
Concentration:	1 μM
Incubation Time:	48 h
Result:	Induced a significant increase in cell proliferation by 37.0%.

In Vivo

GR-46611 (1 mg/kg, i.p.) significantly improves survival of Dravet syndrome (DS) mice[1].

GR-46611 (0.03-300 μg/kg, i.v.) increases threshold volume, bladder capacity, and residual volume in chronic spinal cord injury (SCI) cats[3].

GR46611 (3-30 mg/kg, s.c.) causes a dose-related decrease in rectal temperature in the adult guinea-pig[4].

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

Animal Model:	Dravet syndrome (DS) mice[1]
Dosage:	0.01, 0.1 and 1 mg/kg
Administration:	Intraperitoneal injection (i.p.)
Result:	Improved survival relative to vehicle treated controls with 89% surviving rate.

REFERENCES

[1]. Paul G Hatini, et al. A 5-HT 1D -receptor agonist protects Dravet syndrome mice from seizure and early death. Eur J Neurosci. 2020 Nov;52(10):4370-4374.

[2]. C Sibella-Argüelle, et al. The proliferation of human T lymphoblastic cells induced by 5-HT1B receptors activation is regulated by 5-HT-moduline. C R Acad Sci III. 2001 Apr;324(4):365-72.

[3]. Baojun Gu, et al. Inhibition of bladder activity by 5-hydroxytryptamine1 serotonin receptor agonists in cats with chronic spinal cord injury. J Pharmacol Exp Ther. 2004 Sep;310(3):1266-72.

[4]. M Skingle, et al. Stimulation of central 5-HT1D receptors causes hypothermia in the guinea-pig. J Psychopharmacol. 1994 Jan;8(1):14-21.

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