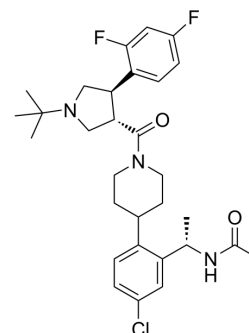


MK-0493

Cat. No.:	HY-118930		
CAS No.:	455956-93-1		
Molecular Formula:	C ₃₀ H ₃₈ ClF ₂ N ₃ O ₂		
Molecular Weight:	546.09		
Target:	Melanocortin Receptor		
Pathway:	GPCR/G Protein; 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 : 100 mg/mL (183.12 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.8312 mL	9.1560 mL	18.3120 mL
5 mM	0.3662 mL	1.8312 mL	3.6624 mL
10 mM	0.1831 mL	0.9156 mL	1.8312 mL

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

BIOLOGICAL ACTIVITY

Description

MK-0493 is a potent, orally active and selective agonist of the melanocortin receptor 4 (MC4R), demonstrating significant reductions in energy intake^[1].

IC₅₀ & Target

MC4R

In Vivo

MK-0493 dose-dependently increases electrically evoked increases in ICP^[2].

MK-0493 is shown to promote robust weight loss activity following oral administration in preclinical animal models, suggesting the drug can access the target site in the hypothalamus^[3].

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

REFERENCES

[1]. Krishna R, et al. Potent and selective agonism of the melanocortin receptor 4 with MK-0493 does not induce weight loss in obese human subjects: energy intake predicts lack of weight loss efficacy. Clin Pharmacol Ther. 2009 Dec;86(6):659-66.

[2]. Sezen SF, et al. Intracavernosal pressure monitoring in mice: responses to electrical stimulation of the cavernous nerve and to intracavernosal drug administration. J Androl. 2000 Mar-Apr;21(2):311-5.

[3]. Hong Q, et al. Discovery of a piperazine urea based compound as a potent, selective, orally bioavailable melanocortin subtype-4 receptor partial agonist. Bioorg Med Chem Lett. 2011 Apr 15;21(8):2330-4.

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

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