[Glp5,(Me)Phe8,Sar9] Substance P (5-11)

Cat. No.:	HY-P3801
CAS No.:	77128-69-9
Molecular Formula:	$C_{43}H_{61}N_9O_9S$
Molecular Weight:	880.06
Sequence:	pGlu-Gln-Phe-N-Methyl-Phe-Sar-Leu-Met-NH2
Sequence Shortening:	pGlp-QF(-Me)F-Sar-LM-NH2
Target:	Neurokinin Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description

[Glp5,(Me)Phe8,Sar9] Substance P (5-11) (DiMe-C7) is a Substance P (HY-P0201) analogue that has approximately the same effects as Substance P (HY-P0201) on neurokinin 1 receptor (NK1R) in rat brain, but with a much longer duration of action. [Glp5,(Me)Phe8,Sar9] Substance P (5-11) selectively activates dopamine metabolism in the mesencephalon and midbrain cortex of the rat brain. [Glp5,(Me)Phe8,Sar9] Substance P (5-11) also increases motor activity and induces recovery of addictive agent-seeking behavior in rats[1][2][3].

In Vivo

[Glp5,(Me)Phe8,Sar9] Substance P (5-11) (2 μg/side; inject into the ventral tegmental area; single) exhibits selective activation of mesolimbic and mesocortical dopamine metabolism in rat brain[1].

[Glp5,(Me)Phe8,Sar9] Substance P (5-11) (0.5, 1.5, 3 μg/side; inject into the ventral tegmental area; single) increases motor activity and induces recovery of addictive agent-seeking behavior in rats[2].

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

Animal Model:	Male Sprague-Dawley rats (300-350 g)[1].
Dosage:	2 μg/side
Administration:	Inject into the ventral tegmental area; single
Result:	Selectively activated mesolimbic and mesocortical dopamine metabolism.

Animal Model:	Male Wistar rats (300-350 g)[2].
Dosage:	0.5, 1.5, 3 μg/side
Administration:	Inject into the ventral tegmental area; single
Result:	Significantly increased locomotor activity when at 3 μg/side.

REFERENCES

[1]. Elliott PJ, et al. Selective activation of mesolimbic and mesocortical dopamine metabolism in rat brain by infusion of a stable substance P analogue into the ventral tegmental area. Brain Res. 1986 Jan 15;363(1):145-7.

[2]. Eison AS, et al. Substance P analog, DiMe-C7: evidence for stability in rat brain and prolonged central actions. Science. 1982 Jan 8;215(4529):188-90.

[3]. Placenza FM, et al. Infusion of the substance P analogue, DiMe-C7, into the ventral tegmental area induces reinstatement of cocaine-seeking behaviour in rats. Psychopharmacology (Berl). 2004 Dec;177(1-2):111-20.

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