[Sar9,Met(O2)11]-Substance P TFA

Cat. No.: HY-P1012A

CAS No.: 2828433-10-7

Molecular Formula: $C_{66}H_{101}F_3N_{18}O_{17}S$

Molecular Weight: 1507.68

Sequence: Arg-Pro-Lys-Pro-Gln-Gln-Phe-Phe-{Sar}-Leu-Met[O2]-NH2

Sequence Shortening: RPKPQQFF-{Sar}-LM[O2]-NH2

Target: Neurokinin Receptor

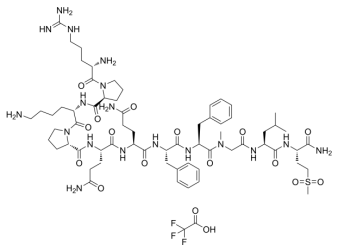
Pathway: GPCR/G Protein; Neuronal Signaling

Storage: Sealed storage, away from moisture

Powder -80°C 2 years

-20°C 1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (66.33 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	0.6633 mL	3.3164 mL	6.6327 mL
5 mM	0.1327 mL	0.6633 mL	1.3265 mL
10 mM	0.0663 mL	0.3316 mL	0.6633 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 50 mg/mL (33.16 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description [Sar9,Met(O2)11]-Substance P TFA is a tachykinin NK_1 receptor selective agonist.

IC_{50} & Target NK_1 receptor[1]

In Vitro [Sar9,Met(O2)11]-Substance P and septide (10-100 pmol per rat, i.c.v.) are equipotent in increasing mean arterial blood pressure (MAP) and heart rate (HR), yet they have dissimilar time-course. Both agonists increase dose-dependently face washing and sniffing while [Sar9,Met(O2)11]-Substance P is the sole to produce grooming[1].

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

REFERENCES

[1]. Cellier E, et al. Characterization of central and peripheral effects of septide with the use of five tachykinin NK1 receptor antagonists in the rat. Br J Pharmacol. 1999 Jun;127(3):717-28.

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