
Product Data Sheet

Product Name: [Sar9,Met(O2)11]-Substance P

Cat. No.: GC13610

Chemical Properties

Cas. No. 110880-55-2

SMILES CC(C[C@@])(/N=C(O)/CN(C([C@])(/N=C(O)/[C@])(/N=C(O)/[C@])(/N=C(O)/[C@]1([H])CCCN1C([C@])(/N=C(O)/[C@]2([H])CCCN2C([C@](N)([H])CCCN(C(N)=N)=O)([H])CCCCN)=O)([H])CCC(O)=N)([H])CCC(O)=N)([H])CC3=CC=CC=C3)([H])CC4=CC=CC=C4)=O)C([H])/C(O)=N/[C@@](C(O)=

Formula C₆₄H₁₀₀N₁₈O₁₅S

M.Wt 1393

Solubility Soluble to 1 mg/ml in sterile water

Storage Desiccate at -20°C

General tips

For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

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

Protocol

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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Kinase experiment:

Rats initially receive an i.c.v. injection of artificial cerebrospinal fluid (aCSF; 1 μ l) followed 60 min later by a single dose of either [Sar9, Met(O₂)¹¹]-Substance P (10 pmol (n=9), 25 pmol (n=9), 65 pmol (n=8) or 100 pmol (n=8)) or septide (10 pmol (n=12), 25 pmol (n=9), 65 pmol (n=6) or 100 pmol (n=6)) to construct a complete dose-response curve. Each rat is selected randomly and injected with only one of the two agonists for the remainder of the protocol. Increasing doses of [Sar9, Met(O₂)¹¹]-Substance P or septide are given at 24 h intervals on day 1 (10 pmol), day 2 (25 pmol), day 3 (65 pmol) and day 4 (100 pmol). Control rats (n=18) receive only the vehicle (aCSF) each day of experiment. Peptides are administered in a volume of 1 μ L of vehicle followed by 5 μ L flush volume of aCSF which corresponds to the void volume of the catheter. Each dose is calculated per rat in 1 μ L solution[1].

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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Background

[Sar9,Met(O2)11]-Substance P is a tachykinin NK1 receptor selective agonist.

[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].

Reference:

[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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