

HKTDSFVGLM-NH₂

Neurokinin A

Cat. No.: HY-P0197 CAS No.: 86933-74-6 Molecular Formula: $C_{50}H_{80}N_{14}O_{14}S$ Molecular Weight: 1133.32

Sequence: His-Lys-Thr-Asp-Ser-Phe-Val-Gly-Leu-Met-NH2

Sequence Shortening: HKTDSFVGLM-NH2 Target: **Neurokinin Receptor**

Pathway: GPCR/G Protein; Neuronal Signaling Sealed storage, away from moisture Storage:

> Powder -80°C 2 years -20°C 1 year

SOLVENT & SOLUBILITY

In Vitro

H₂O: 100 mg/mL (88.24 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	0.8824 mL	4.4118 mL	8.8236 mL
	5 mM	0.1765 mL	0.8824 mL	1.7647 mL
	10 mM	0.0882 mL	0.4412 mL	0.8824 mL

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

BIOLOGICAL ACTIVITY

Description Neurokinin A (Substance K), a peptide neurotransmitter of the tachykinin family, acts via the NK-2 receptor. Neurokinin A

acts as a major mediator in human airway and gastrointestinal tissues^[1].

IC₅₀ & Target NK-2 receptor^[1]

In Vitro Neurokinin A (substance K) is a peptide neurotransmitter of the tachykinin family with potential as a major mediator in human airway and gastrointestinal tissues. Neurokinin A acts via the NK-2 receptor believed to be localized on smooth

muscle cells and pharmacologically coupled to a GTP-binding protein. Neurokinin A is a member of a family of peptide neurotransmitters known as tachykinins. These peptides are associated with the central and peripheral nervous systems and display a wide tissue distribution. Tachykinins share the COOH-terminal structure Phe-X-Gly-Leu-Met-NH. The best known members of this family are Substance P and Neurokinin A or Substance $K^{[1]}$.

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

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

CUSTOMER VALIDATION

- Life Sci. 2021 Jan 5;118967.
- Authorea. September 19, 2022.

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REFERENCES

[1]. Gerard NP, et al. The human neurokinin A (substance K) receptor. Molecular cloning of the gene, chromosome localization, and isolation of cDNA from tracheal and gastric tissues. J Biol Chem. 1990 Nov 25;265(33):20455-62.

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

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