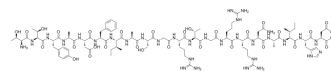


PKI(5-24)

Cat. No.:	HY-P0222
CAS No.:	99534-03-9
Molecular Formula:	C ₉₄ H ₁₄₈ N ₃₂ O ₃₁
Molecular Weight:	2222.38
Sequence:	Thr-Thr-Tyr-Ala-Asp-Phe-Ile-Ala-Ser-Gly-Arg-Thr-Gly-Arg-Arg-Asn-Ala-Ile-His-Asp
Sequence Shortening:	TTYADFIASGRTGRRNAIHD
Target:	PKA
Pathway:	Stem Cell/Wnt
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

H₂O : 25 mg/mL (11.25 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
	1 mM		0.4500 mL	2.2498 mL	4.4997 mL
	5 mM		0.0900 mL	0.4500 mL	0.8999 mL
	10 mM		0.0450 mL	0.2250 mL	0.4500 mL

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

BIOLOGICAL ACTIVITY

Description

PKI(5-24) is a potent, competitive, and synthetic peptide inhibitor of PKA (cAMP-dependent protein kinase), with a K_i of 2.3 nM. PKI(5-24) corresponds to residues 5-24 in the naturally occurring heat-stable protein kinase inhibitor^{[1][2]}.

In Vitro

PKI(5-24) is a 20-residue peptide has been synthesized that corresponds to the active site of the skeletal muscle inhibitor protein^[1].

PKI(5-24) inhibits phosphotransferase activity of the mutant cGMP kinase with higher potency than that of wild type, with K_i values of 42 μM and 160 μM, respectively^[2].

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

CUSTOMER VALIDATION

-
- Mol Cell. 2023 Feb 22;S1097-2765(23)00102-8.
 - Cell Rep. 2021 Sep 21;36(12):109726.
 - Eur J Cell Biol. 2023 Jan 27.

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REFERENCES

- [1]. Cheng HC, et al. A potent synthetic peptide inhibitor of the cAMP-dependent protein kinase. J Biol Chem. 1986;261(3):989-992.
- [2]. Ruth P, et al F. A cGMP kinase mutant with increased sensitivity to the protein kinase inhibitor peptide PKI(5-24). Biol Chem. 1996;377(7-8):513-520.
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Caution: Product has not been fully validated for medical applications. For research use only.

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