



PKI (5-24)

PRODUCT ANALYSIS SHEET

Catalog Number:	PHZ1192
Lot Number:	See product label
Quantity:	0.5 mg
Appearance:	Lyophilized solid
Sequence:	Thr-Thr-Tyr-Ala-Asp-Phe-Ile-Ala-Ser-Gly-Arg-Thr-Gly-Arg-Arg-Asn-Ala-Ile-His-Asp
Molecular Weight:	2222.7
Purity:	>99%, as assessed by HPLC
Peptide Content:	87%
Form:	Trifluoroacetate salt. 0.5 mg net peptide/vial.
Summary:	PKI (5-24) is a cAMP-dependent protein kinase inhibitor whose sequence is derived from the heat-stable skeletal muscle inhibitor protein of PKA. The peptide binds to the catalytic subunit of PKA and displaces the regulatory subunit to inhibit its action. It mimics the protein substrate by binding to the catalytic site via the Arg-cluster basic residues.
Biological Activity:	$K_i = 2.3 \text{ nM}$.
Solubility:	Soluble in H_2O .
Storage:	Store, as supplied, at -20°C , preferably desiccated. Upon solubilization, apportion into working aliquots and store at $\leq -20^\circ\text{C}$. Avoid repeated freeze/thaw cycles. Solutions are stable at $\leq -20^\circ\text{C}$ for up to three months.
Expiration Date:	Expires one year from date of receipt when stored as instructed.
Related Products:	ERK1&2 [pTpY ^{185/187}] antibody, Cat. # 44-680G Tau [pS ²⁶²] antibody, Cat. # 44-750G Tau [pT ²¹²] antibody, Cat. # 44-740G Tau [pS ³⁵⁶] antibody, Cat. # 44-751G Tau [pS ²¹⁴] antibody, Cat. # 44-742G Tau [pS ⁴⁰⁹] antibody, Cat. # 44-760G
References:	Cheng, H.C., et al. (1986) A potent synthetic peptide inhibitor of the cAMP-dependent protein kinase. <i>J. Biol. Chem.</i> 261(3):989-992. Knighton, D.R., et al. (1991) Structure of a peptide inhibitor bound to the catalytic subunit of cyclic adenosine monophosphate-dependent protein kinase. <i>Science</i> 253(5018):414-420. Inglefield, J.R., et al. (2002) Identification of calcium-dependent and -independent signaling pathways involved in polychlorinated biphenyl-induced cyclic AMP-responsive element-binding protein phosphorylation in developing cortical neurons. <i>Neuroscience</i> 115(2):559-573. Liu, F., et al. (2001) Role of cAMP-dependent protein kinase A activity in endothelial cell cytoskeleton rearrangement. <i>Am. J. Physiol. Lung Cell Mol. Physiol.</i> 280(6):L1309-L1317. Lohse, M.J., et al. (1990) Multiple pathways of rapid beta 2-adrenergic receptor desensitization. Delineation with specific inhibitors. <i>J. Biol. Chem.</i> 265(6):3202-3211.
Caution:	Avoid contact with eyes, skin, and mucous membranes. Wear protective clothing when handling this product. Not for human use.

This product is for research use only. Not for use in diagnostic procedures.

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Invitrogen Corporation • 542 Flynn Rd • Camarillo • CA 93012 • Tel: 800.955.6288 • E-mail: techsupport@invitrogen.com

PI PHZ1192

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