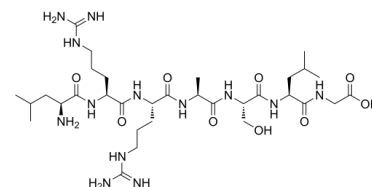


Data Sheet

Product Name:	Kemptide
Cat. No.:	CS-7109
CAS No.:	65189-71-1
Molecular Formula:	C ₃₂ H ₆₁ N ₁₃ O ₉
Molecular Weight:	771.91
Target:	PKA
Pathway:	Stem Cell/Wnt
Solubility:	H ₂ O : 50 mg/mL (64.77 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

Kemptide is a synthetic heptapeptide that acts as a specific substrate for cAMP-dependent protein kinase (**PKA**). Sequence: Leu-Arg-Arg-Ala-Ser-Leu-Gly. **In Vitro:** Kemptide is a synthetic construct of a substrate for cAMP-dependent protein kinase (PK). Different types of intact cells catalyze the phosphorylation of Kemptide in the presence of extracellular ATP and cAMP with Km values of 3-4 uM for Kemptide^[1]. Kemptide is a synthetic peptide substrate derived from pyruvate kinase^[2].

PROTOCOL (Extracted from published papers and Only for reference)

Kinase Assay: ^[2]PKA activity is measured in pools of 10 oocytes at various stages of maturation using the SignaTECT cAMP-Dependent Protein Kinase (PKA) Assay System. Measurements of basal PKA activity are performed in the absence of exogenous cAMP, whereas measurements of total (cAMP-stimulated) PKA activity are performed in reaction buffer containing 0.025 mM cAMP^[2].

References:

[1]. Kübler D, et al. Evidence for ecto-protein kinase activity that phosphorylates Kemptide in a cyclic AMP-dependent mode. J Biol Chem. 1989 Aug 25;264(24):14549-55.

[2]. Duncan FE, et al. Transducin-like enhancer of split-6 (TLE6) is a substrate of protein kinase A activity during mouse oocyte maturation. Biol Reprod. 2014 Mar 20;90(3):63.

CAIndexNames:

Glycine, L-leucyl-L-arginyl-L-arginyl-L-alanyl-L-seryl-L-leucyl-

SMILES:

O=C(O)CNC([C@H](CC(C)C)NC([C@H](CO)NC([C@H](C)NC([C@H](CCCNC(N)=N)NC([C@H](CCCNC(N)=N)NC([C@H](CC(C)C)N)=O)=O)=O)=O)=O

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

Tel: 610-426-3128

Fax: 888-484-5008

E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA