

PRODUCT INFORMATION



Kemptide

Item No. 15555

CAS Registry No.: 65189-71-1

Formal Name: L-leucyl-L-arginyl-L-arginyl-L-alanyl-L-seryl-L-leucyl-glycine

Synonym: NSC 332190

MF: $C_{32}H_{61}N_{13}O_9$

FW: 771.9

H—Leu—Arg—Arg—Ala—Ser—Leu—Gly—OH

Purity: $\geq 95\%$

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥ 4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Kemptide is supplied as a crystalline solid. A stock solution may be made by dissolving the kemptide in the solvent of choice, which should be purged with an inert gas. Kemptide is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of kemptide in these solvents is approximately 25 and 30 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of kemptide can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of kemptide in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Kemptide is a synthetic heptapeptide that acts as a specific substrate for cAMP-dependent protein kinase (PKA) as it carries the recognition and phosphorylation site of PKA.¹ Various cultured cells can catalyze the phosphorylation of kemptide in the presence of extracellular ATP and cAMP (K_m s = 3-4 μM) with plasma membranes remaining intact.¹

Reference

1. Kübler, D., Pyerin, W., Bill, O., *et al.* Evidence for ecto-protein kinase activity that phosphorylates kemptide in a cyclic AMP-dependent mode. *J. Biol. Chem.* **264**(24), 14549-14555 (1989).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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