

# PRODUCT INFORMATION



## Syntide-2

Item No. 15934

CAS Registry No.: 108334-68-5

Formal Name: L-prolyl-L-leucyl-L-alanyl-L-arginyl-L-threonyl-L-leucyl-L-seryl-L-valyl-L-alanylglycyl-L-leucyl-L-prolylglycyl-L-lysyl-L-lysine

H—Pro—Leu—Ala—Arg—Thr—Leu—Ser—Val—

MF:  $C_{68}H_{122}N_{20}O_{18}$

FW: 1,507.8

Ala—Gly—Leu—Pro—Gly—Lys—Lys—OH

Purity:  $\geq 95\%$

Supplied as: A crystalline solid

Storage:  $-20^{\circ}\text{C}$

Stability:  $\geq 4$  years

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

### Laboratory Procedures

Syntide-2 is supplied as a crystalline solid. A stock solution may be made by dissolving the syntide-2 in water. We do not recommend storing the aqueous solution for more than one day.

### Description

Syntide-2 is a synthetic peptide recognized as a substrate by  $\text{Ca}^{2+}$ /calmodulin-dependent protein kinase II (CaMKII;  $K_m = 12 \mu\text{M}$ ).<sup>1</sup> Its sequence is derived from the phosphorylation site 2 on glycogen synthase, a target of CaMKII action.<sup>1</sup> This peptide has been used as a probe to assay CaMKII activity; however, protein kinase C, CaMKV, Raf-1, and other kinases are also known to recognize syntide-2 as a substrate.<sup>1-4</sup>

### References

1. Hashimoto, Y. and Soderling, T.R. Calcium · calmodulin-dependent protein kinase II and calcium · phospholipid-dependent protein kinase activities in rat tissues assayed with a synthetic peptide. *Arch. Biochem. Biophys.* **252**(2), 418-425 (1987).
2. Inoue, S., Mizutani, A., Sugita, R., *et al.* Purification and characterization of a novel protein activator of  $\text{Ca}^{2+}$ /calmodulin-dependent protein kinase I. *Biochem. Biophys. Res. Commun.* **215**(3), 861-867 (1995).
3. Kumar, K.A. and Babu, P.P. CaM kinase II- $\alpha$  activity, levels and Ca/calmodulin dependent phosphorylation of substrate proteins in mice brain during fatal murine cerebral malaria. *Neurosci. Lett.* **336**, 121-125 (2003).
4. Force, T., Bonventre, J.V., Heidecker, G., *et al.* Enzymatic characteristics of the c-Raf-1 protein kinase. *Proc. Natl. Acad. Sci. USA* **91**, 1270-1274 (1994).

#### 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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