

**DLDVPIGRFDRRVpSVAAE**

Catalog number: 31700

Unit size: 1 mg

**Product Details**

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Storage Conditions	Freeze (<-15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

**Chemical Properties**

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Appearance	Solid
Molecular Weight	2192.34
Soluble In	DMSO

**Applications**

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DLDVPIGRFDRRVpSVAAE (H-Asp-Leu-Asp-Val-Pro-Ile-Pro-Gly-Arg-Phe-Asp-Arg-Arg-Val-Ser(PO<sub>3</sub>H<sub>2</sub>)-Val-Ala-Ala-Glu-OH) is an excellent peptide substrate for calcineurin (Protein Phosphatase 2B, PP2B). The sequence is derived from the PKA regulatory subunit type II (RII) and is phosphorylated on the Ser residue. Calcineurin is a calcium-dependent, serine/threonine phosphatase that is involved in a variety of signaling pathways. Calcineurin is distinct among phosphatases because its activity requires calcium and is not sensitive to inhibition by compounds that block the related phosphatases PP1A and PP2A. The current common techniques quantify calcineurin activity by measuring released radioactive phosphate or detection of free phosphate with malachite green. Both methods involve technical challenges and have undesirable features. AAT Bioquest has developed a few excellent phosphate assays that can be used for monitoring the release of phosphate from the dephosphorylation of DLDVPIGRFDRRVpSVAAE by calcineurin. PhosphoWorks™ Colorimetric Phosphate Assay Kit (21665) and PhosphoWorks™ Colorimetric MESG Phosphate Assay Kit (21659) can be used for the colorimetric measurement of phosphate. For higher sensitivity, the release of phosphate can be quantified fluorometrically with PhosphoWorks™ Fluorimetric Phosphate Assay Kit (21660).