



SPECIFICATIONS AND USE

Fluorescent Substrate: Dabcyl-APFEFSAK(FAM)-NH₂

Catalog Number: **PEPDAB053**

Use: This fluorescent peptide substrate is used primarily to assess activity of MMPs. It provides good selectivity since it is not processed very well by the ADAMs tested. Its specificity constant is highly selective for MMP13. It has specificity of MMP9 over MMP2.

The peptide is already dissolved in DMSO to make a stock solution of about 5mM concentration. When used for in vitro assays, the substrate is often used at about 10 μ M concentration. Remember to keep the DMSO concentration in the final reaction at 1% or below, to avoid DMSO effects on the reaction, and remember to have an equivalent percentage of DMSO in the background wells.

For use with the MMPs, the buffer should contain 50 mM Tris, pH 7.5, 150 mM NaCl, 2 mM CaCl₂, 5 μ M ZnSO₄, and 0.01% Brij-35

Excitation and emission wavelengths are 485 and 530 nm respectively.

Molecular Weight: ~ 1509 g/mol

Purity: Greater than 95% as assessed by HPLC and Mass Spectrometry.

Solubility: 1 mg/ml in water

Appearance: Red solution

Shipping: The peptide solution is shipped on dry ice.

Storage: Upon receiving, the peptide should be stored at -70 $^{\circ}$ C. Avoid repeated freeze-thaw cycles. If dissolved in liquid (such as DMSO), aliquot into separate tubes to minimize the number of freeze-thaw cycles.

Stability: Samples are stable up to 6 months at -70 $^{\circ}$ C.

References: [Proteolytic Activity Matrix Analysis \(PrAMA\) for simultaneous determination of multiple protease activities. Miles A Miller, Layla Barkal, Karen Jeng, Andreas Herrlich, Marcia Moss, Linda G Griffith, Douglas A Lauffenburger. Integrative Biology 2010; 3\(4\):422-38](#)