



SPECIFICATIONS AND USE

Fluorescent Substrate: Dabcyl-GPLGMRGK(5FAM)-NH₂

Catalog Number: PEPDAB011

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, k_{cat}/K_m ($M^{-1}s^{-1}$), is 4.3×10^6 , 1.4×10^6 , and 7.3×10^5 , respectively, against MMP13, MMP9, and MMP2. Typically, the peptide is dissolved in DMSO to make a stock solution of about 10mM concentration. When used for in vitro assays, the substrate is often used at about 10 μ M concentration. 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: 1423.4 g/mol

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

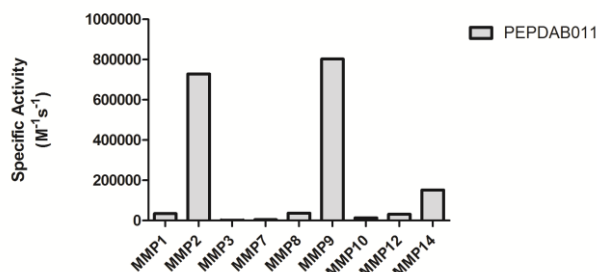
Solubility: 1 mg/ml in water

Appearance: Red lyophilized powder

Shipping: The peptide powder is shipped at room temperature.

Storage: Upon receiving, the peptide should be stored at -70 °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°C.



Reference: Use [of a multiple-enzyme/multiple-reagent assay system to quantify activity levels in samples containing mixtures of matrix metalloproteinases](#). Rasmussen FH, Yeung N, Kiefer L, Murphy G, Lopez-Otin C, Vitek MP, Moss ML. *Biochemistry* 2004 Mar 23;43(11):2987-95.

[Proteolytic Activity Matrix Analysis \(PrAMA\) for Simultaneous Determination of Multiple Protease Activities](#). Miller MA, et al. *Integr Biol (Camb)*. 2011 Apr; 3(4): 422–438. doi: 10.1039/c0ib00083c