ProductInformation

N-Succinyl-Gly-Gly-Phe
4-Methoxy-2-Naphthylamide

Product Number **S 4814**
Storage Temperature –20 °C

Product Description

Molecular formula: $C_{28}H_{30}N_4O_7$
Mol. wt.: 534.6

N-Succinyl-Gly-Gly-Phe 4-methoxy-2-naphthylamine (Suc-GGF-MNA) is a fluorogenic substrate suitable for the determination of chymotrypsins and cathepsin G.

When Suc-GGF-MNA is hydrolyzed, the free MNA produced in the reaction can be quantified by fluorometric detection (excitation 340 nm, emission 425 nm). MNA can also be detected by colorimetric procedures because it couples with azo compounds to give a red color product (525 nm).[2] MNA also couples with 5-nitrosalicylaldehyde to give a yellow to orange fluorescent product for acid proteases.[3,4]

Chymotrypsin is a serine protease with preferential cleavage at Tyr-, Trp-, Phe-, and Leu- residues. Cathepsin G, a serine protease first discovered in human neutrophil leukocytes, has a specificity similar to that of chymotrypsin.[3,4] Suc-GGF-AFC may also be suitable for other serine proteases with the same peptide recognition sequence.

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Preparation Instructions

Prepare stock 20 mM solutions in DMSO.

Storage/Stability

Store product at –20 ° C. Material stable for at least one year, if stored as recommended.

Store stock solutions in frozen aliquots at –20 °C. Allow the material to warm to room temperature before use to ensure stability.

References

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2. Johansen, H. T., et al., Colorimetric and fluorimetric microplate assays for legumain and a staining reaction for detection of the enzyme after electrophoresis. Anal. Biochem., **273,** 278-283 (1999).
3. Smith, R. E., et al., The evolution of proteinase substrates with special reference to dipeptidylpeptidase IV. Histochem. J., **24,** 637-47 (1992).
4. Arnold, W. H., Comparative studies on the localization of esteroproteases and kallikrein-like activity in primate organs. Histochem. J., **16,** 755-69 (1984).
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