D-Val-Leu-Arg 7-amido-4-trifluoromethylcoumarin

Product Number: V2888
Storage Temperature: –20 °C

Product Description
Molecular formula: C_{27}H_{38}F_{3}N_{7}O_{5}
Mol. wt.: 597.6

D-Val-Leu-Arg 7-amido-4-trifluoromethylcoumarin (D-VLR-AFC) is a fluorogenic substrate suitable for the assay of glandular tissue kallikrein.

When D-VLR-AFC is hydrolyzed, the free AFC produced in the reaction can be quantified by fluorometric detection (excitation 400 nm, emission 505 nm) or by spectrophotometric detection at 380 nm (extinction coefficient = 12,600 at pH 7.2). When used in an enzyme assay with fluorescence detection, AFC has higher sensitivity than 4-methoxy-2-naphthylamide (MNA).

Glandular tissue kallikrein is a serine protease that hydrolyzes serum kininogens, glycoproteins occurring in serum, to produce kinins. Kallikrein prefers Arg or Lys at the site of hydrolysis. D-VLR-AFC may also be suitable for other serine proteases with the same peptide recognition sequence.

D-VLR-AFC is supplied as the trifluoroacetate salt.

Preparation Instructions
Prepare stock 10 mM solutions in DMSO.

Storage/Stability
Store at –20 °C. Material stable for at least one year, when 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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