N-Acetyl-Leu-Glu-Val-Asp 7-Amido-4-trifluoromethylcoumarin

Product Number A 2099
Storage Temperature –20 °C

Product Description
Molecular formula: C_{32}H_{40}F_{3}N_{5}O_{11}
Mol. wt.: 727.7

N-Acetyl-Leu-Glu-Val-Asp 7-Amido-4-trifluoromethylcoumarin (Ac-LEVD-AFC) is a fluorometric substrate suitable for the determination of caspase 4 activity.

When Ac-LEVD-AFC is hydrolyzed, the free AFC produced 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).

Caspases (cysteine asparte proteases) are responsible for specific protein cleavage in apoptotic cells. Caspase 4, a member of the caspase-1 subfamily, has a close homology to caspase 5. It is found in most tissues with the exception of brain tissue. The preferred substrate sequence of caspase 4 is LEVD/GW.

Preparation Instructions
Prepare stock 20 mM solutions in DMSO.

Storage/Stability
Store 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