Chymase from human skin mast cells

Product Number C9612
Storage Temperature –20 °C

EC 3.4.21.39

Synonyms: mast cell protease I; skeletal muscle protease; skin chymotryptic proteinase; mast cell serine proteinase, chymase; skeletal muscle (SK) protease

Product Description
Chymase is a cathepsin G-like, serine proteinase found primarily in mast cells. Human mast cell chymase was found to be essentially identical to cardiac chymase. It has a molecular mass of ~30 kDa.

Chymase plays an important role in generating angiotensin II in response to injury of vascular tissues. Inhibition of chymase may be useful for preventing vascular proliferation in grafted vessels. Cardiac chymase has been shown to participate directly in the pathophysiologic state after myocardial infarction in hamsters.

Human chymase selectively converts big endothelin 1 to the 31 amino acid length peptide endothelin 1 [ET-1(1-31)]. ET-1(1-31) increases Ca²⁺ concentration and produces NO in endothelial cells through ETB. Chymase may contribute to development of induced dermatitis by promoting eosinophile infiltration.

This product is supplied as a solution in 50 mM sodium acetate, pH 5.0, with 1 M NaCl.

Specific Activity: ≥30 units per mg protein (Bradford)

Unit Definition: One unit will hydrolyze 1.0 µmole of N-benzoyl-L-tyrosine ethyl ester (BTEE) per minute at pH 7.8 at 25 °C. The assay buffer used to determine the enzyme activity contains 0.3 M Tris, pH 8.3, with 1.5 M NaCl and 15% ethanol.

Purity: ~95% (SDS-PAGE)

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
This product ships on dry ice and storage at –20 °C is recommended.

References
1. IUBMB Enzyme Nomenclature

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