Creative Enzymes®

Furin from Human, Recombinant

Cat. No. NATE-0268

Lot. No. (See product label)

Introduction

Description	Furin is a dibasic endoprotease that is localized in the Golgi apparatus. It is responsible for the proteolytic maturation of many precursor proteins in the secretory and endocytic pathways of mammalian cells. Furin is a dibasic endoprotease that is localized in the Golgi apparatus. It has a molecular mass of 52.7 kDa. It is responsible for the proteolytic maturation of many precursor proteins in the secretory and endocytic pathways of mammalian cells. Furin cleaves precursor proteins at their paired basic amino acid processing sites. Some substrates of furin include von Willebrand factor, transforming growth factor beta 1 precursor, pro-beta-secretase and proparathyroid hormone.
Applications	Furin is capable of cleaving precursors of a wide variety of proteins, including growth factors, serum proteins, including proteases of the blood-clotting and complement systems, matrix metalloproteinases, receptors, viral-envelope glycoproteins, and bacterial exotoxins, typically at sites marked by the consensus sequence Arg-Xaa-(Lys/Arg)-Arg.
Synonyms	furin; prohormone convertase; dibasic processing enzyme; PACE; paired basic amino acid cleaving enzyme; paired basic amino acid converting enzyme; serine proteinase PACE; PC1; SPC3; proprotein convertase

Product Information

Species	Human
Source	Baculovirus infected Sf9 cells
Form	buffered aqueous solution
Activity	> 2,000 unit/mL
Buffer	Solution in 10 mM MES, pH 7.0 at 25°C, 1 mM CaCl2, 50% glycerol.
Pathway	Activation of Matrix Metalloproteinases, organism-specific biosystem; Degradation of the extracellular matrix, organism-specific biosystem; Delta-Notch Signaling Pathway, organism-specific biosystem; Developmental Biology, organism-specific biosystem; Extracellular matrix organization, organism-specific biosystem; Gamma-carboxylation, transport, and amino-terminal cleavage of proteins, organism-specific biosystem; Glypican 3 network, organism-specific biosystem
Function	endopeptidase activity; metal ion binding; nerve growth factor binding; peptidase activity; peptide binding; protease binding; serine-type endopeptidase activity; serine-type endopeptidase activity; serine-type endopeptidase inhibitor activity
Unit Definition	One unit is defined as the amount of Furin that will release 1 pmole of AMC from the fluorogenic peptide Boc-RVRR-AMC in 1 minute at 30°C.

Storage and Shipping Information

Storage	−70°C