Creative Enzymes®

# Furin from Human, Recombinant

*Cat. No. NATE-0268*

*Lot. No.* (See product label)

## Introduction

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| ***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

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| ***Species*** | Human |
| ***Source*** | Baculovirus infected Sf9 cells |
| ***Form*** | buffered aqueous solution |
| ***Activity*** | 2,000 units/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*** | 1 unit is defined as the amount of enzyme required to cleave 25 µg of a MBP-FN-paramyosin-ΔSal substrate to 95% completion in 6 hours at 25°C in a total reaction volume of 25 µl. |

## Storage and Shipping Information

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| ***Storage*** | -20°C |