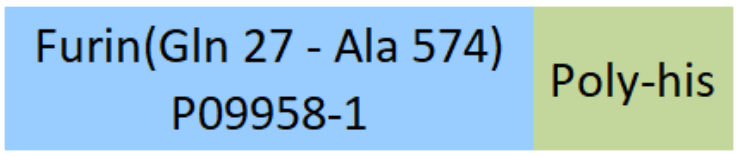
Synonym

FURIN,FUR,PACE,PCSK3,SPC1

Source

Human Furin, His Tag(FUN-H52H3) is expressed from human 293 cells (HEK293). It contains AA Gln 27 - Ala 574 (Accession # P09958-1).
Predicted N-terminus: Gln 27

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 62.1 kDa. The protein migrates as 50-65 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 μm filtered solution in 20 mM Tris, 150 mM NaCl, pH9.0 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

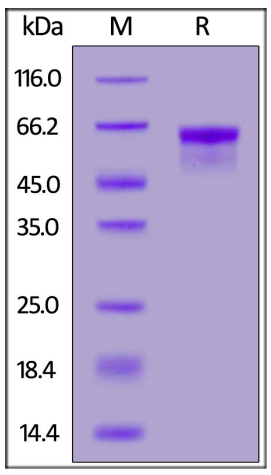
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

SDS-PAGE



Human Furin, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity

Measured by its ability to cleave the fluorogenic peptide substrate pERTKR-AMC. The specific activity is >125 pmol/min/μg, as measured under the described conditions (QC tested).

Background

Furin is also known as paired basic Amino acid Cleaving Enzyme (PACE), is an enzyme which belongs to the subtilisin-like proprotein convertase family. The members of this family are proprotein convertases that process latent precursor proteins into their biologically active products. Furin is enriched in the Golgi

apparatus, where it functions to cleave other proteins into their mature/active forms. The expression of furin in T-cells is required for maintenance of peripheral immune tolerance. Furin cleaves proteins just downstream of a basic amino acid target sequence (canonically, Arg-X-(Arg/Lys) -Arg'). PACE is a calcium-dependent serine endoprotease that can efficiently cleave precursor proteins at their paired basic amino acid processing sites. In addition to processing cellular precursor proteins, furin is also utilized by a number of pathogens. For example, the envelope proteins of viruses such as HIV, influenza and dengue fever viruses must be cleaved by furin or furin-like proteases to become fully functional. PACE also play a role in tumor progression.