

Recombinant Furin protein ab6032

描述

产品名称	重组Furin蛋白
表达系统	Mammalian
Accession	<u>P09958</u>
蛋白长度	Full length protein
无动物成分	No
性质	Recombinant
预测分子量	87 kDa
氨基酸	1 to 713

技术指标

Our **Abpromise guarantee** covers the use of **ab6032** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	Western blot
形式	Liquid
补充说明	<p>This 81 kDa recombinant protein was obtained from cytoplasmic extracts by centrifugation and lysis of BSC-40 cells infected with recombinant vaccinia virus (VV:hFUR713t). The preparation was subjected to UV irradiation for 5 minutes to inactivate any residual virus. Activity of 1 U/μl, where 1 U (a unit of activity) is defined as the amount of furin that can release 1 pmol of AMC from the fluorogenic peptide pERTKR-MCA in 1 min.</p>

Furin is a membrane-associated, calcium-dependent, serine protease that belongs to the subtilisin-like prohormone convertase (PC) family. Members of this family of cellular enzymes cleave most prohormones and neuropeptide precursors. Numerous other cellular proteins, some viral proteins, and bacterial toxins that are transported by the constitutive secretory pathway are also targeted for maturation by PCs. Furin and other PC family members share structural similarities which include a heterogeneous ~10 kDa amino-terminal proregion, a highly conserved ~55 kDa subtilisin-like catalytic domain, and carboxyl-terminal domain that is heterogeneous in length and sequence. These enzymes become catalytically active following proregion cleavage within the appropriate cellular compartment. Furin is the only known PC to possess a transmembrane domain. Cleavage of target proteins occurs at the carboxyl-terminus of the furin consensus sequence, RX(K/R)R. It has been shown that the acidic peptide sequence, C771PSDSEEDG780, localizes furin to the trans-Golgi-network. Phosphorylation of serine

residues within this region modulates intracellular routing of furin protein. An additional signaling domain includes the tetrapeptide sequence, Y759KGL762, which directs internalization from the cell surface.

制备和贮存

稳定性和存储

Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Preservative: 0.05% Sodium azide

Constituent: 0.1% BSA

This product is an active protein and may elicit a biological response in vivo, handle with caution.

常规信息

功能

Furin is likely to represent the ubiquitous endoprotease activity within constitutive secretory pathways and capable of cleavage at the RX(K/R)R consensus motif.

组织特异性

Seems to be expressed ubiquitously.

序列相似性

Belongs to the peptidase S8 family. Furin subfamily.

Contains 1 homo B/P domain.

结构域

Contains a cytoplasmic domain responsible for its TGN localization and recycling from the cell surface.

翻译后修饰

The inhibition peptide, which plays the role of an intramolecular chaperone, is autocatalytically removed in the endoplasmic reticulum (ER) and remains non-covalently bound to furin as a potent autoinhibitor. Following transport to the trans Golgi, a second cleavage within the inhibition propeptide results in propeptide dissociation and furin activation.

Phosphorylation is required for TGN localization of the endoprotease. In vivo, exists as di-, mono- and non-phosphorylated forms.

细胞定位

Golgi apparatus > trans-Golgi network membrane. Cell membrane. Shuttles between the trans-Golgi network and the cell surface. Propeptide cleavage is a prerequisite for exit of furin molecules out of the endoplasmic reticulum (ER). A second cleavage within the propeptide occurs in the trans Golgi network (TGN), followed by the release of the propeptide and the activation of furin.

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