10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Furin Rabbit pAb

Furin Rabbit pAb
Catalog # AP55098

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P09958
Reactivity	Mouse
Predicted	Rat, Pig, Dog, Human, Rabbit, Chicken, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	86678
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Furin
Epitope Specificity	401-500/794
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Furin is a calcium-dependent serine endoprotease that belongs to the subtilisin-like proprotein convertase family. The members of this family process latent precursor proteins into their biologically active products. Furin cleaves at paired basic amino acid processing sites within proparathyroid hormone, transforming growth factor β 1 precursor, proalbumin, pro-β-secretase, membrane type-1 matrix metalloproteinase, β subunit of pro-nerve growth factor and von Willebrand factor. Furin can directly cleave proMMP-2 within the ttrans-Golgi network leading to an inactive form of matrix metalloproteinase-2 (MMP-2). Furin is synthesized as an inactive zymogen that may minimize the occurrence of premature enzymatic activity that would lead to alternative protein activation or degradation. The inhibitory mechanism is based on the presence of an inactivating prosegment at the NH2 terminal of the Furin. After initial autocatalytic cleavage, the prosegment remains tightly associated until it reaches the trans-Golgi network where the dissociation of the prosegment and activation of furin occurs.

Additional Information

Gene ID	5045

Other Names	Furin, 3.4.21.75, Dibasic-processing enzyme, Paired basic amino acid residue-cleaving enzyme, PACE, FURIN {ECO:0000303|PubMed:7690548, ECO:0000312|HGNC:HGNC:8568}
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

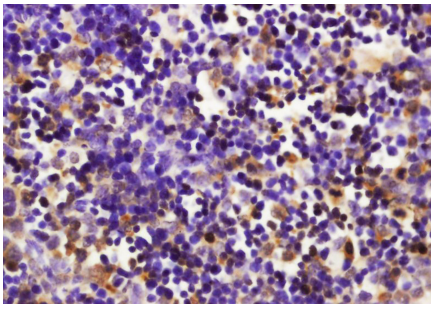
Protein Information

Name	FURIN {ECO:0000303|PubMed:7690548, ECO:0000312|HGNC:HGNC:8568}
Function	Ubiquitous endoprotease within constitutive secretory pathways capable of cleavage at the RX(K/R)R consensus motif (PubMed:11799113, PubMed:1629222, PubMed:1713771, PubMed:2251280, PubMed:24666235, PubMed:25974265, PubMed:7592877, PubMed:7690548, PubMed:9130696). Mediates processing of TGFB1, an essential step in TGF-beta-1 activation (PubMed:7737999). Converts through proteolytic cleavage the non-functional Brain natriuretic factor prohormone into its active hormone BNP(1-32) (PubMed:20489134, PubMed:21763278). By mediating processing of accessory subunit ATP6AP1/Ac45 of the V-ATPase, regulates the acidification of dense-core secretory granules in islets of Langerhans cells (By similarity).
Cellular Location	Golgi apparatus, trans-Golgi network membrane; Single-pass type I membrane protein. Cell membrane; Single-pass type I membrane protein. Secreted. Endosome membrane; Single-pass type I membrane protein. Note=Shuttles between the trans-Golgi network and the cell surface (PubMed:11799113, PubMed:9412467). 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 (PubMed:11799113)
Tissue Location	Seems to be expressed ubiquitously.

Background

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Images



Tissue/cell: mouse spleen tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min; Incubation: Anti-Furin Polyclonal Antibody, Unconjugated(AP55098) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.