



20150720BB

Anti-Human Furin (#4G31)

**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

Cat.-no.:	101-M423
Size:	100 µg
Lot. No.:	According to product label

Preparation: This antibody was produced from a hybridoma (mouse myeloma fused with spleen cells from a mouse) immunized with human recombinant protein of Furin.

Target Background

Synonyms (Target):	FURIN; FUR; PACE; SPC1; PCSK3
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Furin is a member of the proprotein convertase (PC) family, which belongs to the subtilisin superfamily of serine protease. As a cellular protease, Furin processes a variety of proproteins in secretory pathway compartments by cleaving after ArgXaaLys/ ArgArglike motifs, which usually reside at the end of the pro regions of these proproteins. Examples of the proprotein substrates are growth factors and receptors, extracellular matrix proteins, and other proteases. Furin has an essential role in embryogenesis and homeostasis and is implicated in various pathologies such as cancer, neurodegenerative diseases and anthrax. It is synthesized as a 794 amino acid type I transmembrane protein precursor with a signal peptide (residues 124), a pro region (residues 25-107), which play a crucial role in the folding, activation and transport of Furin, and a mature chain (residues 108-794). The mature chain consists of the subtilisin-like catalytic domain, a P domain, which is essential for enzyme activity and the modulation of pH and calcium requirements, and a cytoplasmic domain, which controls the localization and sorting of Furin in the transGolgi network/endosomal system. The purified recombinant human Furin (residues 108-715) corresponds to the mature enzyme terminated before the transmembrane domain.

Database References Target

Protein RefSeq:	NP_002560.1
Uniprot ID:	P09958
mRNA RefSeq:	NM_002569.2

Product Specifications

Host	Mouse
Reactivity against	Human
Clonality	Monoclonal Antibody
Clone	(#4G31)
Isotype	IgG1
Purification	Protein G chromatography
Antigen	recombinant human Furin
Formulation	lyophilized
Reconstitution buffer	PBS (sterile)

Reconstitution: Reconstitute the antibody with 200 µl sterile PBS and the final concentration is 500 µg/ml.

Stability: Lyophilized samples are stable for 2 years from date of receipt when stored at -70°C. Reconstituted antibody can be aliquoted and stored frozen at < -20 °C for at least for six months without detectable loss of activity.

Remarks: This antibody was selected for its ability to detect human Furin.

**AVOID REPEATED FREEZE AND THAW CYCLES!**

Applications

The antibody can be used within the following applications:

WB, IHC (P)

Recommended usage:

Western Blot: 1:500 - 1:1000

IHC (Paraffin): 1:20 - 1:100

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!



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Handling/Application

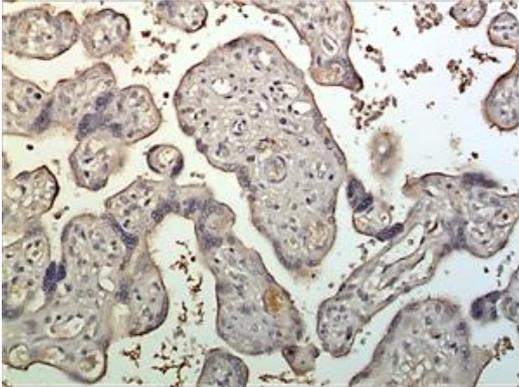


Fig. 1: A 10% Buffer formalin fixed and paraffin embedded human placental tissue section (4um) is subjected to IHC staining using a mouse anti-human Furin monoclonal antibody. Tissue section was pretreated in citric buffer (ph6.0) with microwave for antigen retrieval before IHC is applied.