

### Anti-Furin antibody ab3467

★★★★★ [7 Abreviews](#) [24 References](#) [画像数 5](#)

#### 製品の概要

製品名	Anti-Furin antibody
製品の詳細	Rabbit polyclonal to Furin
由来種	Rabbit
特異性	Detects Furin from canine and mouse cells as well as transfected human Furin. This antibody does not detect endogenous Furin from BSC-40, HeLa, J774A.1 BPAEC, or CHO cells nor from rat skeletal muscle, spleen, kidney, ovary, testes, heart, or brain tissue.
アプリケーション	<b>適用あり:</b> ICC, WB
種交差性	<b>交差種:</b> Mouse, Human
免疫原	Synthetic peptide corresponding to Human Furin aa 780-793. Sequence: RGERTAFIKDQSAL  (Peptide available as <a href="#">ab4989</a> )

 [Run BLAST with](#)

 [Run BLAST with](#)

#### 特記事項

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

#### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 99% PBS
精製度	Immunogen affinity purified
一次抗体 備考	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.

ポリ/モノ

ポリクローナル

アイソタイプ

IgG

## アプリケーション

### The Abpromise guarantee

**Abpromise保証は、次のテスト済みアプリケーションにおけるab3467の使用に適用されます**

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ICC		Use a concentration of 2 µg/ml.
WB	★★★★★ (3)	Use at an assay dependent concentration. Detects a band of approximately 100 kDa (predicted molecular weight: 87 kDa). Can be blocked with <b>Furin peptide (ab4989)</b> . Representing Furin in BSC-40 cells transfected with the human Furin gene.

## ターゲット情報

### 機能

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.

### 組織特異性

Seems to be expressed ubiquitously.

### 配列類似性

Belongs to the peptidase S8 family. Furin subfamily.  
Contains 1 homo B/P domain.

### ドメイン

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

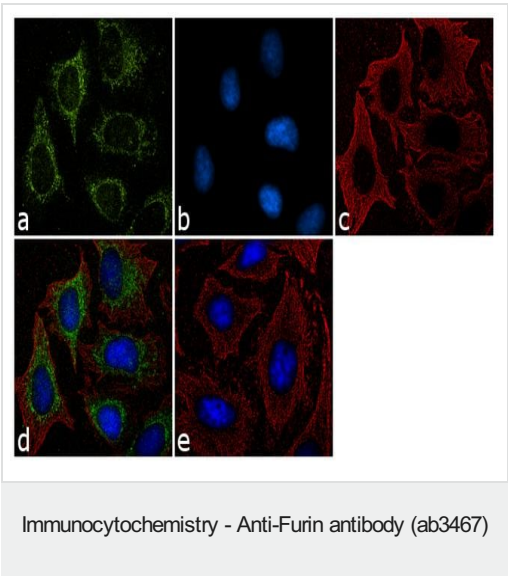
### 翻訳後修飾

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.

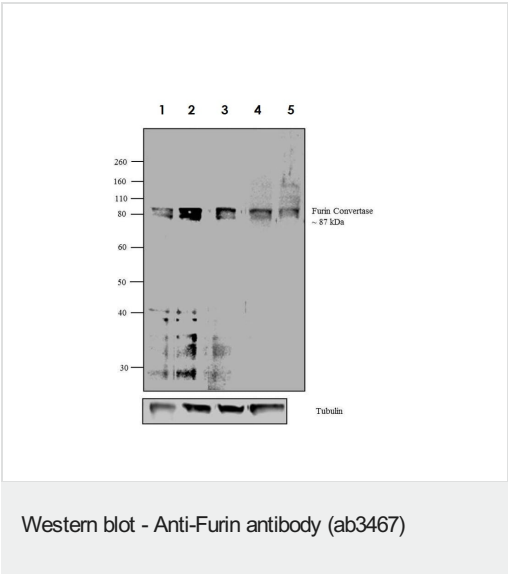
細胞内局在

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.

画像



Immunocytochemical analysis of methanol-fixed 2% BSA blocked HeLa cells strining furin with ab3467 at 2 µg/ml and labeled with Goat anti-Rabbit IgG (H+L) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate at 1/2000 dilution (green). Nuclei are stained with SlowFade® Gold Antifade Mountant with DAPI (blue), and the cytoskeleton with alpha-Tubulin Monoclonal Antibody and Goat anti-Mouse IgG Secondary Antibody, Alexa Fluor® 594 conjugate at 1/400 dilution (red). Negative control uses no primary antibody



**All lanes :** Anti-Furin antibody (ab3467) at 1/500 dilution

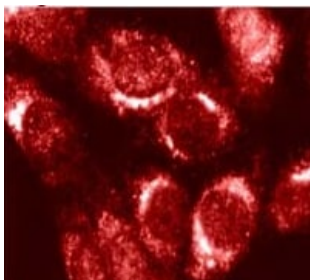
- Lane 1 :** HeLa lysate at 30 µg
- Lane 2 :** HEK-293 extract at 30 µg
- Lane 3 :** K-562 extract at 30 µg
- Lane 4 :** SH-SY5Y extract at 30 µg
- Lane 5 :** conditioned media from HeLa cell line at 10 µg

**Secondary**

**All lanes :** Goat anti-Rabbit IgG (H+L) Superclonal™ Secondary Antibody, HRP conjugate at 1/2500 dilution

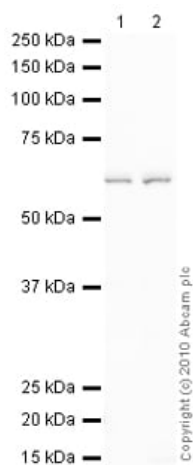
Developed using the ECL technique.

**Predicted band size:** 87 kDa



Immunocytochemistry - Anti-Furin antibody (ab3467)

Immunolocalization of endogenous furin in mouse 3T3 cells with ab3467.



Western blot - Anti-Furin antibody (ab3467)

**All lanes :** Anti-Furin antibody (ab3467) at 1 µg/ml

**Lane 1 :** HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

**Lane 2 :** A431 (Human epithelial carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) preadsorbed ([ab97080](#)) at 1/5000 dilution

Developed using the ECL technique.

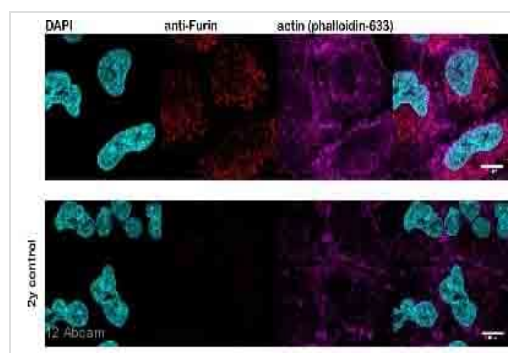
Performed under reducing conditions.

**Predicted band size:** 87 kDa

**Observed band size:** 63 kDa

**Exposure time:** 90 seconds

The band observed at 63 kDa could potentially be a cleaved form of Furin due to the presence of a 24 amino acid signal peptide and a 83 amino acid propeptide.



Immunocytochemistry - Anti-Furin antibody (ab3467)

Image courtesy of an anonymous Abreview.

ab3467 staining Furin in human A549 cells by Immunocytochemistry/ Immunofluorescence.

Cells were fixed with paraformaldehyde, permeabilized using 0.1% Triton X-100, blocked with 1% BSA/ 5%FBS/PBS for 1 hour at 25°C and then incubated with ab3467 at a 1/100 dilution for 1 hour at 25°C. The secondary used was an Alexa-Fluor 546 conjugated goat anti-rabbit polyclonal used at a 1/500 dilution.

Cells were counterstained with DAPI (436nM, 5 mins) and Phalloidin-633 (1unit/coverslip) and mounted with prolong gold. No staining seen in secondary control and furin staining was punctate and throughout the cytoplasm.

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