abcam

Product datasheet

Anti-ITCH/AIP4 (phospho Y420) antibody ab111488

1 图像

概述

产品名称	Anti-ITCH/AIP4 (phospho Y420)**抗体**
描述	**兔多克隆抗体**to ITCH/AIP4 (phospho Y420)
宿主	Rabbit
特异性	ab111488 detects endogenous levels of ITCH/AIP4 only when phosphorylated at tyrosine 420 (Human: Tyr420; Mouse: Tyr381).
经测试应用	**适用于:** IHC-P
种属反应性	**与反应:** Human **预测可用于:** Mouse
免疫原	Synthetic phosphopeptide derived from Human ITCH/AIP4 around the phosphorylation site of tyrosine 420 (F-I-Y^{P}-G-N).
阳性对照	Human brain tissue

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
存储溶液	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 50% Glycerol, 49% PBS, 0.88% Sodium chloride
纯度	Immunogen affinity purified
纯化说明	ab111488 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.
克隆	**多克隆**
同种型	IgG

应用

The Abpromise guarantee	**Abpromise™承诺保证使用**ab111488**于以下的**经测试应用

"应用说明"**部分 下显示的**仅为**推荐的起始稀释度**;实际**最佳的稀释度**/浓度应**由使用者检定。**

应用	Ab评论	说明
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

靶标

功能

Acts as an E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. It catalyzes 'Lys-29'-, 'Lys-48'- and 'Lys-63'-linked ubiquitin conjugation. It is involved in the control of inflammatory signaling pathways. Is an essential component of a ubiquitin-editing protein complex, comprising also TNFAIP3, TAX1BP1 and RNF11, that ensures the transient nature of inflammatory signaling pathways. Promotes the association of the complex after TNF stimulation. Once the complex is formed, TNFAIP3 deubiquitinates 'Lys-63' polyubiquitin chains on RIPK1 and catalyzes the formation of 'Lys-48'-polyubiquitin chains. This leads to RIPK1 proteosomal degradation and consequently termination of the TNF- or LPS-mediated activation of NFKB1. Ubiquitinates RIPK2 by 'Lys-63'-linked conjugation and influences NOD2-dependent signal transduction pathways. Regulates the transcriptional activity of several transcription factors, and probably plays an important role in the regulation of immune response. Ubiquitinates NFE2 by 'Lys-63' linkages and is implicated in the control of the development of hematopoietic lineages. Critical regulator of T helper (TH2) cytokine development through its ability to induce JUNB ubiquitination and degradation (By similarity). Ubiquitinates SNX9. Ubiquitinates CXCR4 and HGS/HRS and regulates sorting of CXCR4 to the degradative pathway. It is involved in the negative regulation of MAVS-dependent cellular antiviral responses. Ubiquitinates MAVS through 'Lys-48'-linked conjugation resulting in MAVS proteosomal degradation. Involved in the regulation of apoptosis and reactive oxygen species levels through the ubiquitination and proteosomal degradation of TXNIP. Mediates the antiapoptotic activity of epidermal growth factor through the ubiquitination and proteosomal degradation of p15 BID. Targets DTX1 for lysosomal degradation and controls NOTCH1 degradation, in the absence of ligand, through 'Lys-29'-linked polyubiquitination.

组织特异性

Widely expressed.

通路

Protein modification; protein ubiquitination.

疾病相关

Defects in ITCH are the cause of syndromic multisystem autoimmune disease (SMAD) [MIM:613385]. SMAD is characterized by organomegaly, failure to thrive, developmental delay, dysmorphic features and autoimmune inflammatory cell infiltration of the lungs, liver and gut.

序列相似性

Contains 1 C2 domain.
Contains 1 HECT (E6AP-type E3 ubiquitin-protein ligase) domain.
Contains 4 WW domains.

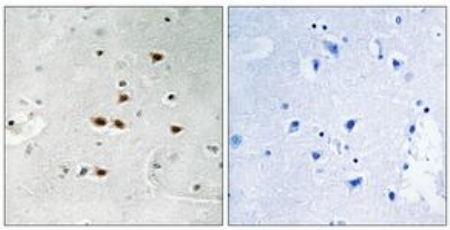
翻译后修饰

On T-cell activation, phosphorylation by the JNK cascade on serine and threonine residues surrounding the PRR domain accelerates the ubiquitination and degradation of JUN and JUNB. The increased ITCH catalytic activity due to phosphorylation by JNK1 may occur due to a conformational change disrupting the interaction between the PRR/WW motifs domain and the HECT domain and, thus exposing the HECT domain (By similarity). Phosphorylation by FYN reduces interaction with JUNB and negatively controls JUN ubiquitination and degradation. Ubiquitinated; autopolyubiquitination with 'Lys-63' linkages which does not lead to protein degradation.

细胞定位

Cell membrane. Cytoplasm. Nucleus. Associates with endocytic vesicles. May be recruited to exosomes by NDFIP1.

图片



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ITCH/AIP4 (phospho Y420) antibody (ab111488)

ab111488, at 1/50 dilution, staining ITCH/AIP4 in paraffin-embedded Human brain tissue by Immunohistochemistry, in the presence (right panel) or absence (left panel) of immunising peptide.

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