Data Sheet (Cat.No.TMAH-00641)

TargetMol

Anti-ITCH Antibody (2Z536)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	2Z536
Purification:	Affinity-chromatography

Applications

Verified Activity:	Western Blot -Positive WB detected in: K562 whole cell lysate, U-251 whole cell lysate, THP-1 whole cell lysate -All lanes: ITCH antibody at 1:1000 -Secondary: Goat polyclonal to rabbit IgG at 1/50000 dilution -Predicted band size: 103, 99, 87 kDa -Observed band size: 103 kDa
Application:	ELISA,WB
Recommended	WB:1:500-1:5000.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: Human ITCH
Antigen Species:	Human
Gene ID:	83737
Uniprot ID:	Q96J02
Synonyms:	NAPP1;Atrophin-1-interacting protein 4;Itch;NFE2-associated polypeptide 1;E3 ubiquitin-protein ligase Itchy homolog;EC 2.3.2.26;AIP4;HECT-type E3 ubiquitin transferase Itchy homolog
Biology Area:	Cell biology

Research Background

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. Catalyzes 'Lys-29'-, 'Lys-48'- and 'Lys-63'-linked ubiquitin conjugation. Involved in the control of inflammatory signaling pathways. 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 proteasomal 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. Mediates JUN ubiquitination and degradation. Mediates JUNB ubiquitination and degradation. Critical regulator of type 2 helper T (Th2) cell cytokine production by inducing JUNB ubiquitination and degradation. Involved in the negative regulation of MAVS-dependent cellular antiviral responses. Ubiquitinates MAVS through 'Lys-48'-linked conjugation resulting in MAVS proteasomal degradation. Following ligand stimulation, regulates sorting of Wnt receptor FZD4 to the degradative endocytic pathway probably by modulating PI42KA activity. Ubiquitinates PI4K2A and negatively regulates its catalytic activity. Ubiquitinates chemokine receptor CXCR4 and regulates sorting of CXCR4 to the degradative endocytic pathway following ligand stimulation by ubiquitinating endosomal sorting complex required for transport ESCRT-0 components HGS and STAM. Targets DTX1 for lysosomal degradation and controls NOTCH1 degradation, in the absence of ligand, through 'Lys-29'-linked polyubiquitination. Ubiquitinates SNX9. Ubiquitinates MAP3K7 through 'Lys-48'-linked conjugation. Involved in the regulation of apoptosis and reactive oxygen species levels through the ubiquitination and proteasomal degradation of TXNIP. Mediates the antiapoptotic activity of epidermal growth factor through the ubiquitination and proteasomal degradation of p15 BID. Ubiquitinates BRAT1 and this ubiquitination is enhanced in the presence of NDFIP1. Inhibits the replication of influenza A virus (IAV) via ubiquitination of IAV matrix protein 1 (M1) through 'Lys-48'-linked conjugation resulting in M1 proteasomal degradation.

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