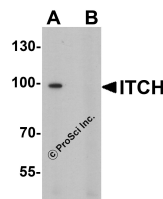




# ITCH Antibody

Cat. No.: 7645



Western blot analysis of ITCH in 3T3 cell lysate with ITCH antibody at 1 µg/ml in (A) the absence and (B) the presence of blocking peptide.

## Ψ Specifications

<b>HOST SPECIES:</b>	Rabbit
<b>SPECIES REACTIVITY:</b>	Human, Mouse, Rat
<b>IMMUNOGEN:</b>	ITCH antibody was raised against a 15 amino acid peptide near the amino terminus of human ITCH .  The immunogen is located within amino acids 40 - 90 of ITCH.
<b>TESTED APPLICATIONS:</b>	ELISA, WB
<b>APPLICATIONS:</b>	ITCH antibody can be used for detection of ITCH by Western blot at 1 - 2 µg/ml.  Antibody validated: Western Blot in mouse samples. All other applications and species not yet tested.
<b>SPECIFICITY:</b>	ITCH antibody is human, mouse and rat reactive. At least three isoforms of ITCH are known to exist; this antibody only recognizes the two longest isoforms. This antibody is predicted to not cross-react with other members of the Nedd4 protein family.
<b>POSITIVE CONTROL:</b>	1) Cat. No. 1282 - 3T3 (NIH) Cell Lysate
<b>PREDICTED MOLECULAR WEIGHT:</b>	Predicted: 99 kDa  Observed: 99 kDa

<b>PURIFICATION:</b>	ITCH antibody is affinity chromatography purified via peptide column.
<b>CLONALITY:</b>	Polyclonal
<b>ISOTYPE:</b>	IgG
<b>CONJUGATE:</b>	Unconjugated
<b>PHYSICAL STATE:</b>	Liquid
<b>BUFFER:</b>	ITCH antibody is supplied in PBS containing 0.02% sodium azide.
<b>CONCENTRATION:</b>	1 mg/mL
<b>STORAGE CONDITIONS:</b>	ITCH antibody can be stored at 4 °C for three months and -20 °C, stable for up to one year.

## Ψ Additional Info

<b>OFFICIAL SYMBOL:</b>	ITCH
<b>ALTERNATE NAMES:</b>	ITCH Antibody: AIF4, AIP4, NAPP1, dj468O1.1, E3 ubiquitin-protein ligase Itchy homolog, Atrophin-1-interacting protein 4, Itch
<b>ACCESSION NO.:</b>	NP_001244066
<b>PROTEIN GI NO.:</b>	380420335
<b>GENE ID:</b>	83737
<b>USER NOTE:</b>	Optimal dilutions for each application to be determined by the researcher.

## Ψ Background and References

<b>BACKGROUND:</b>	The Itchy E3 ubiquitin protein ligase (ITCH) is a member of the Nedd4 family of HECT domain E3 ubiquitin ligases (1). HECT domain E3 ubiquitin ligases transfer ubiquitin from E2 ubiquitin-conjugating enzymes to protein substrates, thus targeting specific proteins for lysosomal degradation. ITCH plays a role in multiple cellular processes including erythroid and lymphoid cell differentiation and the regulation of immune responses (2). In B cells, ITCH is thought to associate with latent membrane protein 2A (LMP2A) of Epstein-Barr virus, specifically down-regulating its activity in B cell signaling (3). Mutations in this gene are a cause of syndromic multisystem autoimmune disease (4).
<b>REFERENCES:</b>	1) Perry WL, Hustad CM, Swing DA, et al. The itchy locus encodes a novel ubiquitin protein ligase that is disrupted in a18H mice. <i>Nat. Genet.</i> 1998; 18:143-6. 2) Melino G, Gallagher E, Aqeilan RI, et al. Itch: a HECT-type E3 ligase regulating immunity, skin and cancer. <i>Cell Death Differ.</i> 2008; 15:1103-12. 3) Ikeda A, Caldwell RG, Longnecker R, et al. Itchy, a Nedd4 ubiquitin ligase, downregulates latent membrane protein 2A activity in B-cell signaling. <i>J. Virol.</i> 2003; 77:5529-34.

	4) Matesic LE, Copeland NG, and Jenkins NA. Itchy mice: the identification of a new pathway for the development of autoimmunity. <i>Curr. Top. Microbiol. Immunol.</i> 2008; 321:185-200.
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