

Rabbit ITK Polyclonal Antibody | anti-ITK antibody

Phospho-ITK (Tyr512) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329665	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (100%), Bovine (100%), Horse (89%), Sheep (100%), Rabbit (100%), Dog (100%)	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

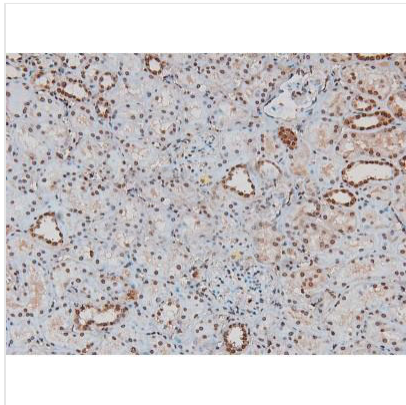
ITK; Polyclonal Antibody; Phospho-ITK (Tyr512) Antibody; EMT; Homolog of mouse T cell itk/tsk; IL 2 inducible T cell kinase; IL2 inducible T cell kinase; Interleukin 2 inducible T cell kinase; Itk; ITK_HUMAN; Kinase EMT; LPFS1; LYK; MGC126257; MGC126258; PSCTK 2; PSCTK2; T cell specific kinase; T-cell-specific kinase; TSK; Tyrosine protein kinase; Tyrosine protein kinase ITK/TSK; Tyrosine protein kinase Lyk; Tyrosine-protein kinase ITK/TSK; Tyrosine-protein kinase Lyk; anti-ITK antibody

PRODUCT SPECIFICATIONS

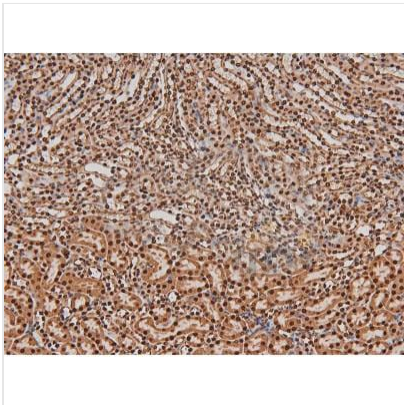
Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (100%), Bovine (100%), Horse (89%), Sheep (100%), Rabbit (100%), Dog (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-ITK (Tyr512) Antibody detects endogenous levels of ITK only when phosphorylated at Tyr512. Tissue Specificity: T-cell lines and natural killer cell lines.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-ITK antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ITK around the phosphorylation site of Tyr512.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylated at Tyr-512 in the activation loop of the kinase domain by LCK. Subsequent autophosphorylation at Tyr-180 leads to the kinase activation. The autophosphorylated Tyr-180 lies within the substrate binding sequence of the SH3 domain. Ubiquitinated.
Subunit Structure	Homooligomerizes; this association negatively regulates kinase activity (By similarity). Interacts with PPIA/CYPA; this interaction regulates TCR signal strength via a proline-directed conformational switch in ITK. Interacts with THEMIS (By similarity). Interacts with FASLG. Interacts with VAV1; this interaction is important for VAV1 localization and TCR-induced actin polarization. Interacts with TBX21 (By similarity).
Similarity	The N-terminal pHdomain allows ITK to be recruited to the plasma membrane by an activated PI3 kinase. This domain contains also a proline-rich region (PRR). The adjoining domain is a SH3 domain, which binds to PRR (from itself or from other proteins). Next, a SH2 domain is required for binding tyrosine-phosphorylated substrates. In the C-terminal region, the kinase domain is required for tyrosine phosphorylation. Belongs to the protein kinase superfamily. Tyr protein kinase family. TEC subfamily.

Subcellular Location	Cytoplasm. Nucleus. Note: Localizes in the vicinity of cell surface receptors in the plasma membrane after receptor stimulation.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

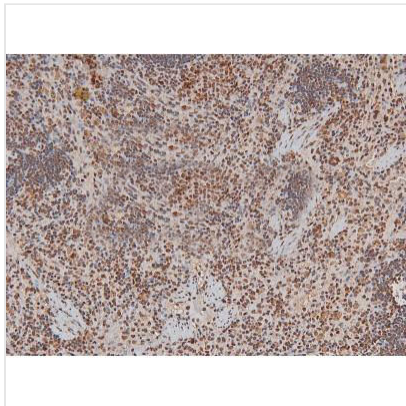
IMAGES



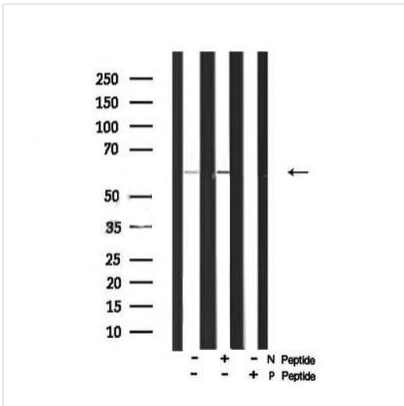
IHC (Immunohistochemistry)
At 1/200 staining Human kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemisry)
At 1/200 staining Mouse kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



IHC (Immunohiostchemistry)
Staining Rat spleen tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary antibody.



WB (Western Blot)
Western blot analysis ITK (Phospho-Tyr512) using UV treated 293 whole cell lysates. -/+ means absence or presence of N peptide¼ non-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-ITK antibody	Tyrosine kinase that plays an essential role in regulation of the adaptive immune response. Regulates the development, function and differentiation of conventional T-cells and nonconventional NKT-cells. When antigen presenting cells (APC) activate T-cell receptor (TCR), a series of phosphorylation lead to the recruitment of ITK to the cell membrane, in the vicinity of the stimulated TCR receptor, where it is phosphorylated by LCK. Phosphorylation leads to ITK autophosphorylation and full activation. Once activated, phosphorylates PLCG1, leading to the activation of this lipase and subsequent cleavage of its substrates. In turn, the endoplasmic reticulum releases calcium in the cytoplasm and the nuclear activator of activated T-cells (NFAT) translocates into the nucleus to perform its transcriptional duty. Phosphorylates 2 essential adapter proteins: the linker for activation of T-cells/LAT protein and LCP2. Then, a large number of signaling molecules such as VAV1 are recruited and ultimately lead to lymphokine production, T-cell proliferation and differentiation. Phosphorylates TBX21 at 'Tyr-530' and mediates its interaction with GATA3 (By similarity).
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NCBI AND UNIPROT INFORMATION

NCBI GI #	585361
NCBI GeneID	3702
UniProt Accession #	Q08881; Q32ML7; B2R752
Molecular Weight	620
NCBI Official Full Name	Tyrosine-protein kinase ITK/TSK
NCBI Official Synonym Full Names	IL2-inducible T-cell kinase
NCBI Official Symbol	ITK
NCBI Official Synonym Symbols	EMT; LYK; LPFS1; PSCTK2
NCBI Protein Information	tyrosine-protein kinase ITK/TSK; kinase EMT; T-cell-specific kinase; tyrosine-protein kinase LYK; IL-2-inducible T cell kinase; IL-2-inducible T-cell kinase; homolog of mouse T-cell itk/tsk; interleukin-2-inducible T cell kinase; interleukin-2-inducible T
UniProt Protein Name	Tyrosine-protein kinase ITK/TSK
UniProt Gene Name	ITK
UniProt Synonym Gene Names	EMT; LYK; IL-2-inducible T-cell kinase
UniProt Entry Name	ITK_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/itk-antibody-peptide-elisa-immunohistochemistry-western-blot-elisa/329665>