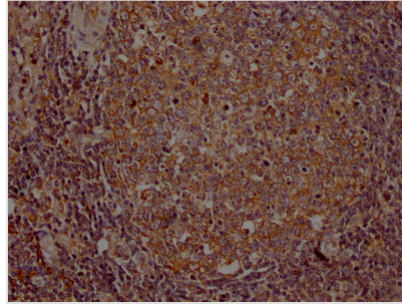




ITK Antibody

Product Code	CSB-RA954682A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q08881
Immunogen	A synthesized peptide derived from human ITK
Species Reactivity	Human
Tested Applications	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
Relevance	<p>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.</p>
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Signal transduction
Gene Names	ITK
Accession NO.	8F10
Image	



IHC image of CSB-RA954682A0HU diluted at 1:100 and staining in paraffin-embedded human lymph node tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

ITK is a non-receptor tyrosine kinase that drives T-cell signaling downstream of TCR activation. It is highly expressed in T-cells. ITK signaling is involved in the regulation of T cell activation, T helper cell differentiation, and thymic selection of developing thymocytes. Human ITK deficiency is linked to primary immunodeficiency, progressive natural killer T (NKT) and CD4+ T-cell lymphopenia, increased Epstein-Bar virus (EBV) vulnerability, and EBV-driven lymphoproliferative disorders, with frequent pulmonary involvement emerging as a clinical signature. In addition to the involvement in the pathogenesis of autoimmune diseases, ITK also participates in carcinogenesis.

Mammalian cells are transfected with plasma vectors containing ITK antibody genes, allowing for both recombinant ITK antibody expression and secretion to the medium. Collecting the cell supernatant and purifying to obtain the recombinant ITK antibody by Affinity-chromatography. This recombinant ITK antibody has been validated to detect the ITK protein of Human in the ELISA, IHC.