

Recombinant Anti-Emt Rabbit mAb

Catalog # AP95067

Product Information

Application	WB, IHC, FC
Primary Accession	Q08881
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal
Calculated MW	71831

Additional Information

Gene ID	3702
Other Names	EMT; LYK; Tyrosine-protein kinase ITK/TSK; Interleukin-2-inducible T-cell kinase; IL-2-inducible T-cell kinase; Kinase EMT; T-cell-specific kinase; Tyrosine-protein kinase Lyk
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within human Emt protein. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~1:10~50
Format	Liquid in PBS, pH 7.3, 50% glycerol, 0.05% BSA, and 0.05% Proclin300.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	ITK
Synonyms	EMT, LYK
Function	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 (PubMed:[12186560](#), PubMed:[12682224](#), PubMed:[21725281](#)). Required for TCR-mediated calcium response in gamma-delta T-cells, may also be involved in the modulation of the transcriptomic signature in the Vgamma2-positive subset of immature gamma-delta T-cells (By similarity). Phosphorylates TBX21 at 'Tyr-530' and mediates its interaction with GATA3 (By similarity).

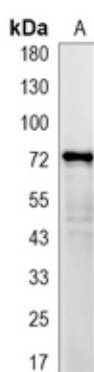
Cellular Location

Cytoplasm. Nucleus {ECO:0000250|UniProtKB:Q03526}. Note=Localizes in the vicinity of cell surface receptors in the plasma membrane after receptor stimulation

Tissue Location

T-cell lines and natural killer cell lines.

Images



Western blot analysis of Emt expression in Jurkat (A) whole cell lysates. (Predicted band size: 72 kD; Observed band size: 72 kD)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.