

Anti-Tec Picoband Antibody

Catalog # ABO10136

Product Information

Application	WB
Primary Accession	P42680
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Tec detection. Tested with WB in Human;Mouse;Rat.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	7006
Other Names	Tyrosine-protein kinase Tec, 2.7.10.2, TEC, PSCTK4
Calculated MW	73581
Application Details	Western blot, 0.1-0.5 µg/ml
Subcellular Localization	Cytoplasm. Cell membrane; Following B-cell or T-cell receptors activation by antigen, translocates to the plasma membrane through its PH domain. Thrombin and integrin engagement induces translocation of TEC to the cytoskeleton during platelet activation. In cardiac myocytes, assumes a diffuse intracellular localization under basal conditions but is recruited to striated structures upon various stimuli, including ATP (By similarity).
Tissue Specificity	Expressed in a wide range of cells, including hematopoietic cell lines like myeloid, B-, and T-cell lineages.
Source	Eukaryota
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence of human Tec (HDANTLYIFAPSPQSRDLWVKKLKEEIKNNNNIMIKYHPK).
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20° C; for one year. After r° Constitution, at 4° C; for one month. It° Can also be aliquotted and stored frozen at -20° C; for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	TEC
Synonyms	PSCTK4
Function	Non-receptor tyrosine kinase that contributes to signaling from many receptors and participates as a signal transducer in multiple downstream pathways, including regulation of the actin cytoskeleton. Plays a redundant role to ITK in regulation of the adaptive immune response. Regulates the development, function and differentiation of conventional T-cells and nonconventional NKT-cells. Required for TCR- dependent IL2 gene induction. Phosphorylates DOK1, one CD28-specific substrate, and contributes to CD28-signaling. Mediates signals that negatively regulate IL2RA expression induced by TCR cross-linking. Plays a redundant role to BTK in BCR-signaling for B-cell development and activation, especially by phosphorylating STAP1, a BCR-signaling protein. Required in mast cells for efficient cytokine production. Involved in both growth and differentiation mechanisms of myeloid cells through activation by the granulocyte colony-stimulating factor CSF3, a critical cytokine to promoting the growth, differentiation, and functional activation of myeloid cells. Participates in platelet signaling downstream of integrin activation. Cooperates with JAK2 through reciprocal phosphorylation to mediate cytokine-driven activation of FOS transcription. GRB10, a negative modifier of the FOS activation pathway, is another substrate of TEC. TEC is involved in G protein-coupled receptor- and integrin-mediated signalings in blood platelets. Plays a role in hepatocyte proliferation and liver regeneration and is involved in HGF-induced ERK signaling pathway. TEC also regulates FGF2 unconventional secretion (endoplasmic reticulum (ER)/Golgi-independent mechanism) under various physiological conditions through phosphorylation of FGF2 'Tyr-215'. May also be involved in the regulation of osteoclast differentiation.
Cellular Location	Cytoplasm. Cell membrane; Peripheral membrane protein. Cytoplasm, cytoskeleton. Note=Following B-cell or T-cell receptors activation by antigen, translocates to the plasma membrane through its PH domain. Thrombin and integrin engagement induces translocation of TEC to the cytoskeleton during platelet activation. In cardiac myocytes, assumes a diffuse intracellular localization under basal conditions but is recruited to striated structures upon various stimuli, including ATP (By similarity).
Tissue Location	Expressed in a wide range of cells, including hematopoietic cell lines like myeloid, B-, and T-cell lineages

Background

TEC (TEC Protein Tyrosine Kinase) is an enzyme that in humans is encoded by the TEC gene. The protein encoded by this gene belongs to the Tec family of non-receptor protein-tyrosine kinases containing a pleckstrin homology domain. By fluorescence in situ hybridization, Sato et al. (1994) mapped the gene to 4p12, the same location reported for TXK. Mouse Tec is a non-receptor type protein-tyrosine kinase that is highly expressed in many hematopoietic cell lines. Hantschel et al. (2007) identified TEC kinase and BTK kinase as major binders of the tyrosine kinase inhibitor dasatinib, which is used for treatment of BCR/ABL-positive CML.

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