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TEC Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP7721c

Specification

TEC Antibody (Center) Blocking Peptide - Product Information

Primary Accession	P42680
Other Accession	TEC_HUMAN

TEC Antibody (Center) Blocking Peptide - Additional Information

Gene ID 7006

Other Names
Tyrosine-protein kinase Tec, TEC, PSCTK4

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7721c was selected from the Center region of human TEC . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TEC Antibody (Center) Blocking Peptide - 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 regulates also 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

TEC Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

TEC Antibody (Center) Blocking Peptide - Images

TEC Antibody (Center) Blocking Peptide - Background

TEC belongs to the TEC subfamily of non-receptor protein-tyrosine kinases containing a pleckstrin homology domain. TEC family kinases are involved in the intracellular signaling mechanisms of cytokine receptors, lymphocyte surface antigens, heterotrimeric G-protein coupled receptors, and integrin molecules. They are also key players in the regulation of the immune functions. TEC kinase is an integral component of T cell signaling and has a distinct role in T cell activation. TEC may be associated with myelodysplastic syndrome.

TEC Antibody (Center) Blocking Peptide - References

Nore, B.F., et al., Biochim. Biophys. Acta 1645(2):123-132 (2003).Maltais, A., et al., Cancer Lett. 183(1):87-94 (2002).Lachance, G., et al., J. Biol. Chem. 277(24):21537-21541 (2002).Yang, W.C., et al., Immunity 12(4):373-382 (2000).Yang, W.C., et al., J. Biol. Chem. 274(2):607-617 (1999).