10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

TEC Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP16402a

Specification

TEC Antibody (N-term) Blocking Peptide - Product Information

Primary Accession P42680

TEC Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 7006

Other Names
Tyrosine-protein kinase Tec, TEC, PSCTK4

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 (N-term) 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 (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

TEC Antibody (N-term) Blocking Peptide - Images

TEC Antibody (N-term) Blocking Peptide - Background

TEC belongs to the Tec familyof non-receptor protein-tyrosine kinases containing a pleckstrinhomology domain. Tec family kinases are involved in theintracellular signaling mechanisms of cytokine receptors,lymphocyte surface antigens, heterotrimeric G-protein coupledreceptors, and integrin molecules. They are also key players in theregulation of the immune functions. Tec kinase is an integralcomponent of T cell signaling and has a distinct role in T cellactivation. This gene may be associated with myelodysplasticsyndrome.

TEC Antibody (N-term) Blocking Peptide - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :Ebert, A.D., et al. Traffic 11(6):813-826(2010)Susaki, K., et al. Immunol. Lett. 127(2):135-142(2010)Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)