

TEC Blocking Peptide (Center)
Synthetic peptide
Catalog # BP21065a**Specification**

TEC Blocking Peptide (Center) - Product InformationPrimary Accession [P42680](#)**TEC Blocking Peptide (Center) - Additional Information****Gene ID** 7006**Other Names**

Tyrosine-protein kinase Tec, TEC, PSCTK4

Target/Specificity

The synthetic peptide sequence is selected from aa 254-268 of HUMAN TEC

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 Blocking Peptide (Center) - 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 Blocking Peptide (Center) - Protocols

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

- [Blocking Peptides](#)

TEC Blocking Peptide (Center) - Images

TEC Blocking Peptide (Center) - Background

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TEC Blocking Peptide (Center) - References

Sato K.,et al.Leukemia 8:1663-1672(1994).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Nore B.F.,et al.Biochim. Biophys. Acta 1645:123-132(2003).

Tang B.,et al.Mol. Cell. Biol. 14:8432-8437(1994).

Laffargue M.,et al.Biochem. Biophys. Res. Commun. 238:247-251(1997).