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TEC Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7721C

Specification

TEC Antibody (Center) - Product Information

Application	**IF, WB, IHC-P,E**
Primary Accession	P42680
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**73581**
Antigen Region	**175-205**

TEC Antibody (Center) - Additional Information

Gene ID 7006

Other Names
Tyrosine-protein kinase Tec, TEC, PSCTK4

Target/Specificity
This TEC antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 175-205 amino acids from the Central region of human TEC.

Dilution
IF~~1:10~50
WB~~1:1000
IHC-P~~1:50~100
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
TEC Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

TEC Antibody (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 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

TEC Antibody (Center) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TEC Antibody (Center) - Images

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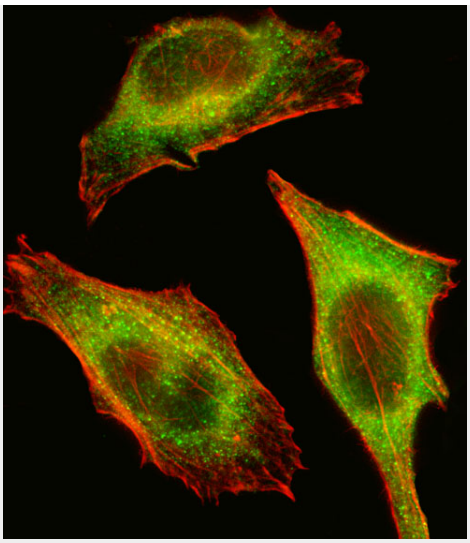
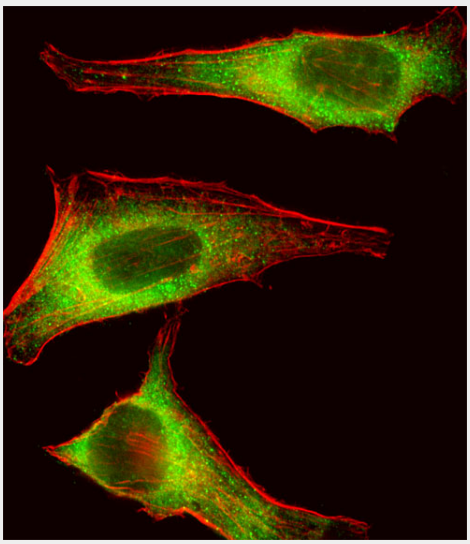


Fluorescent image of Hela cell stained with TEC Antibody (Center)(Cat#AP7721c).Hela cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with TEC primary antibody (1:25, 1 h at 37℃). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37℃).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37℃).TEC immunoreactivity is localized to Cytoplasm significantly.



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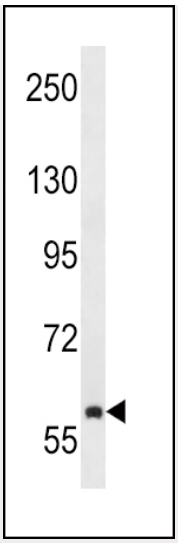
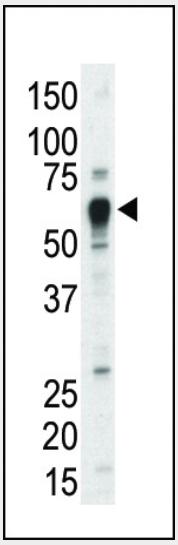
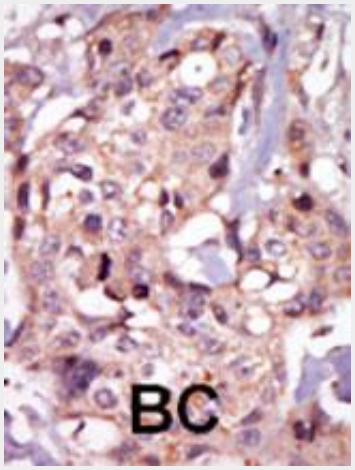


TEC Antibody (F190) (Cat. #AP7721c) western blot analysis in NCI-H292 cell line lysates (35ug/lane).This demonstrates the TEC antibody detected the TEC protein (arrow).



Western blot analysis of anti-TEC Pab (Cat. #AP7721c) in mouse liver tissue lysate. TEC (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

TEC Antibody (Center) - 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) - References

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Maltais, A., et al., Cancer Lett. 183(1):87-94 (2002).
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Yang, W.C., et al., Immunity 12(4):373-382 (2000).
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