

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

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**TEC Antibody (Center) - Product Information**

Application	IF, WB, IHC-P,E
Primary Accession	<a href="#">P42680</a>
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

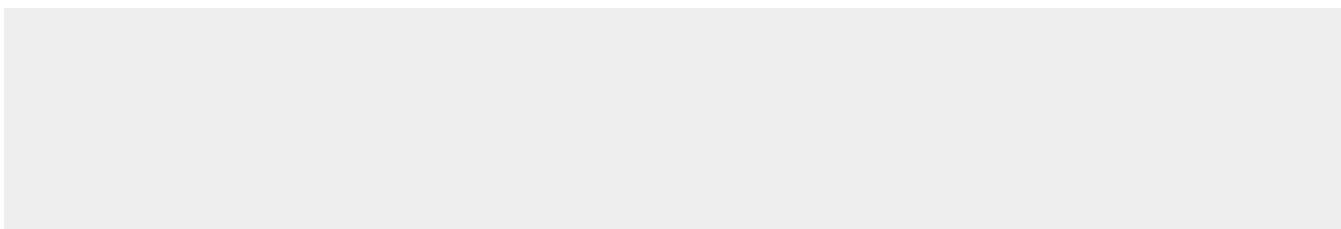
Expressed in a wide range of cells, including hematopoietic cell lines like myeloid, B-, and T-cell lineages

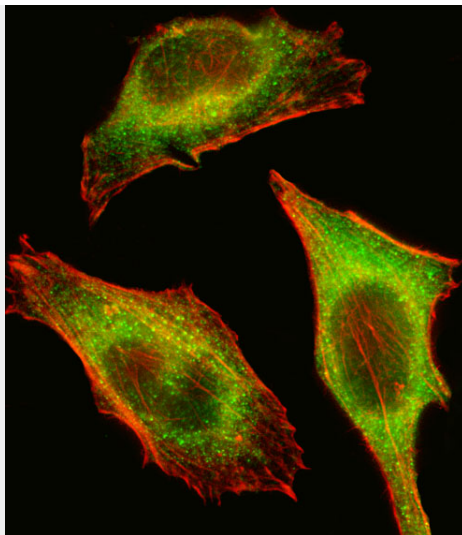
## TEC Antibody (Center) - Protocols

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

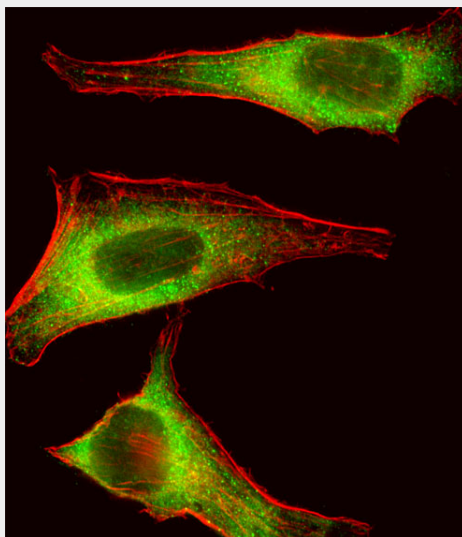
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## TEC Antibody (Center) - Images

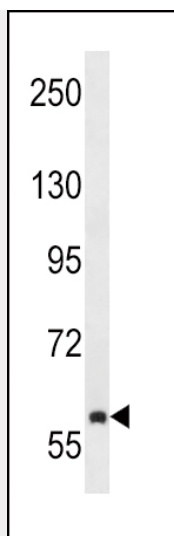




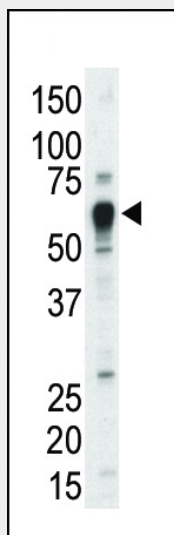
Fluorescent image of Hela cell stained with TEC Antibody (Center)(Cat#AP7721c).Hela cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with TEC primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit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



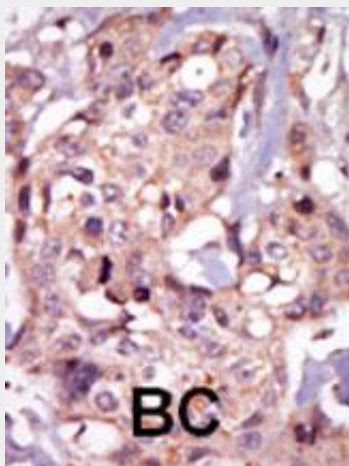
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TEC Antibody (F190) (Cat. #AP7721c) western blot analysis in NCI-H292 cell line lysates (35ug/lane). This demonstrates the TEC antibody detected the TEC protein (arrow).



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**

- 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).