


## Product datasheet

### Anti-Tec antibody [Y398] ab32368

Recombinant RabMAb

[2 References](#) [5 Images](#)

#### Overview

<b>Product name</b>	Anti-Tec antibody [Y398]
<b>Description</b>	Rabbit monoclonal [Y398] to Tec
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, Flow Cyt (Intra), ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat 
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Epitope</b>	ab32368 reacts with an epitope located in the PH domain of Tec.
<b>Positive control</b>	IHC-P: Human ovary carcinoma tissue. ICC/IF: Jurkat cells. Flow Cyt (intra): Jurkat cells. WB: Jurkat cell lysate.
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	Y398

Isotype

IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab32368 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/2000 - 1/5000. Detects a band of approximately 66 kDa (predicted molecular weight: 73 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
Flow Cyt (Intra)		1/30 - 1/100. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		1/100 - 1/500.

## Target

### 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.

### Tissue specificity

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

### Sequence similarities

Belongs to the protein kinase superfamily. Tyr protein kinase family. TEC subfamily. Contains 1 Btk-type zinc finger. Contains 1 PH domain.

Contains 1 protein kinase domain.

Contains 1 SH2 domain.

Contains 1 SH3 domain.

### Domain

The PH domain mediates the binding to inositol polyphosphate and phosphoinositides, leading to its targeting to the plasma membrane. It is extended in the BTK kinase family by a region designated the TH (Tec homology) domain, which consists of about 80 residues preceding the SH3 domain.

The SH3 domain is essential for its targeting to activated CD28 costimulatory molecule.

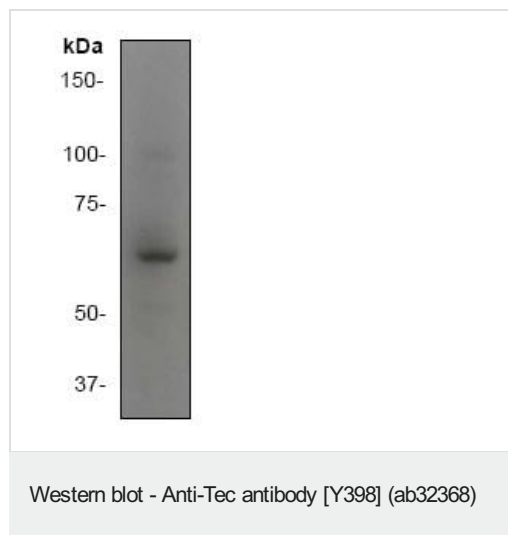
### Post-translational modifications

Following B-cell or T-cell receptors engagement, translocates to the plasma membrane where it gets phosphorylated at Tyr-519. Undergoes also tyrosine phosphorylation during platelet activation.

### Cellular localization

Cytoplasm. Cell membrane. Cytoplasm, cytoskeleton. 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).

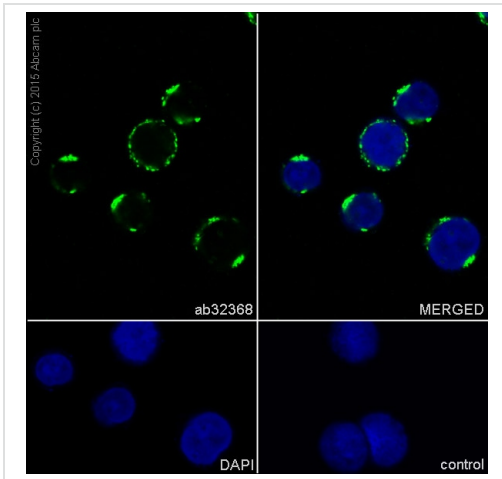
### Images



Anti-Tec antibody [Y398] (ab32368) at 1/10000 dilution + Jurkat (Human T cell leukemia cell line from peripheral blood) cell lysate

**Predicted band size:** 73 kDa

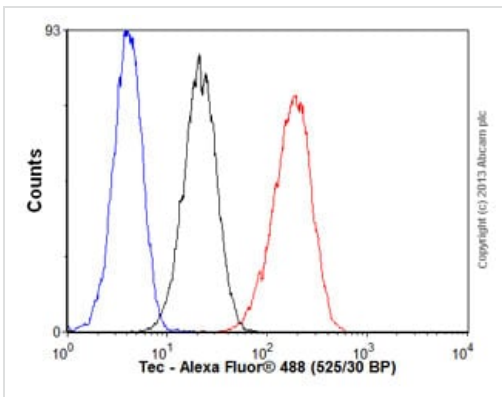
**Observed band size:** 66 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Tec antibody [Y398] (ab32368)

Immunocytochemistry/Immunofluorescence analysis of Jurkat (human acute T cell leukemia) labeling Tec with purified ab32368 at 1/500. Cells were fixed with 100% methanol. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody (**ab150077**). Nuclei counterstained with DAPI (blue).

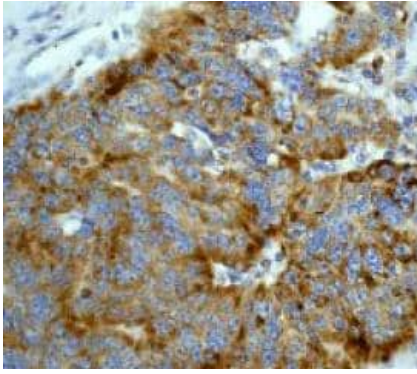
Control: PBS only



Flow Cytometry (Intracellular) - Anti-Tec antibody [Y398] (ab32368)

Overlay histogram showing Jurkat (Human T cell leukemia cell line from peripheral blood) cells stained with ab32368 (red line).

The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab32368, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) (**ab150077**) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1 µg/1x10<sup>6</sup> cells) used under the same conditions. Unlabeled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tec antibody [Y398] (ab32368)

ab32368 at a 1/50 dilution staining human ovary carcinoma tissue by immunohistochemistry, paraffin embedded tissue.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

### Why choose a recombinant antibody?



Anti-Tec antibody [Y398] (ab32368)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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