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Tec Antibody

Store at -20C
#4987

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 58 to 75	Source/Isotype: Rabbit	UniProt ID: #P42680	Entrez-Gene Id: 7006
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Tec Antibody detects endogenous levels of Tec protein. This antibody does not cross-react with Etk, Itk or Btk.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence surrounding amino acid residue 110 of human Tec. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Tec kinase belongs to a structurally related subfamily of protein tyrosine kinases (PTKs) that includes Btk, Itk (also known as Emt or Tsk), Bmx, and Txk (or Rlk) (1). With the exception of Txk, the members of this subfamily possess a long amino-terminal region consisting of a pleckstrin homology (PH) domain and a Tec homology (TH) domain. Because PH domains bind phosphoinositides with high affinity, the Tec family kinases have been proposed to act downstream of phosphatidylinositol 3-kinase (PI3-kinase) in signaling pathways. Binding of the PH domain with phosphoinositides is probably required for targeting of Tec family kinases to the cell membrane (2). Tec kinase is activated in response to many upstream signaling events including antigen receptor, RTK, GPCR, and integrin stimulation (3,4). Activated Tec kinase directly phosphorylates substrates such as PLC-gamma 2 and BRDG1 docking protein (5) and mediates downstream signaling.

Background References

1. August, A. et al. (2002) *Int. J. Biochem. Cell Biol.* 34, 1184-1189.
2. Pillai, S. and Moran, S.T. (2002) *Biochim. Biophys. Acta.* 1602, 162-167.
3. Lewis, C. M. et al. (2001) *Curr. Opin. Immunol.* 13, 317-325.
4. Schmidt, U. et al. (2004) *Int. Arch. Allergy Immunol.* 134, 65-78.
5. Ohya, K. et al. (1999) *Proc Natl Acad Sci U S A* 96, 11976-81.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse

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