

Tec (M-20): sc-1109



The Power to Question

BACKGROUND

The Tec family of non-receptor tyrosine kinases is composed of six proteins designated Tec, Emt (also known as Itk or Tsk), Btk (previously known as Atk, BPK or Emb), Bmx, Txk (also known as Rlk) and Dsrc28C. All members of the family contain SH3 and SH2 domains and, with the exception of Txk and Dsrc28C, also contain a Pleckstrin homology (PH) and a Tec homology (TH) domain in their amino-termini. Four alternatively spliced forms of Tec are found to be expressed broadly in cells of hematopoietic lineage and hepatocytes. The Emt gene product associates with CD28 and becomes activated subsequent to CD28 ligation. Btk is necessary for proper B cell development, and mutations in the gene encoding Btk have been associated with families suffering from X-linked agammaglobulinemia, also referred to as Bruton's disease. The Bmx protein shares a high degree of homology with Btk and seems to be expressed at highest levels in the heart. Txk expression is T cell-specific, while expression of the *Drosophila* Tec homolog, Dsrc28C, is developmentally regulated.

CHROMOSOMAL LOCATION

Genetic locus: TEC (human) mapping to 4p12; Tec (mouse) mapping to 5 C3.2.

SOURCE

Tec (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Tec of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1109 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Tec (M-20) is recommended for detection of Tec of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Tec (M-20) is also recommended for detection of Tec in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Tec siRNA (h): sc-36633, Tec siRNA (m): sc-36634, Tec shRNA Plasmid (h): sc-36633-SH, Tec shRNA Plasmid (m): sc-36634-SH, Tec shRNA (h) Lentiviral Particles: sc-36633-V and Tec shRNA (m) Lentiviral Particles: sc-36634-V.

Molecular Weight of Tec: 59 kDa.

Positive Controls: U266 whole cell lysate: sc-364800.

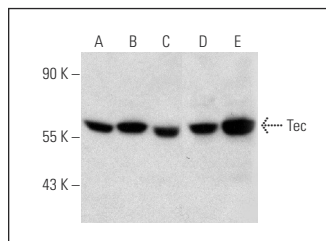
RESEARCH USE

For research use only, not for use in diagnostic procedures.

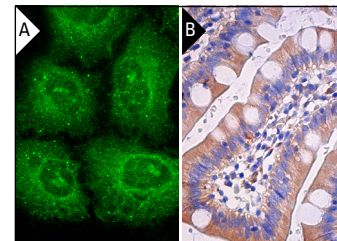
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Tec (M-20): sc-1109. Western blot analysis of Tec expression in Jurkat (A), HeLa (B), Ramos (C), HEL 92.1.7 (D) and U266 (E) whole cell lysates.



Tec (M-20): sc-1109. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Kline, J.B., et al. 2001. Activation and association of the Tec tyrosine kinase with the human prolactin receptor: mapping of a Tec/Vav1-receptor binding site. *Mol. Endocrinol.* 15: 832-841.
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- Vicent, S., et al. 2004. Mitogen-activated protein kinase phosphatase-1 is overexpressed in non-small cell lung cancer and is an independent predictor of outcome in patients. *Clin. Cancer Res.* 10: 3639-3649.
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- Popa-Nita, O., et al. 2008. Crystal-induced neutrophil activation: X. Proinflammatory role of the tyrosine kinase Tec. *Arthritis Rheum.* 58: 1866-1876.
- Liao, H.R., et al. 2012. 5-Hydroxy-7-methoxyflavone inhibits N-formyl-L-methionyl-L-leucyl-L-phenylalanine-induced superoxide anion production by specific modulate membrane localization of Tec with a PI3K independent mechanism in human neutrophils. *Biochem. Pharmacol.* 84: 182-191.
- Choi, H.K., et al. 2013. Early estrogen-induced gene 1, a novel RANK signaling component, is essential for osteoclastogenesis. *Cell Res.* 23: 524-536.

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Try **Tec (G-5): sc-365533**, our highly recommended monoclonal alternative to Tec (M-20).