

Bmx (N-16): sc-8873

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.

REFERENCES

1. Yamada, N., et al. 1993. Structure and expression of novel protein tyrosine kinases, Emb and Emt, in hematopoietic cells. *Biochem. Biophys. Res. Commun.* 192: 231-240.
2. Thomas, J.D., et al. 1993. Colocalization of X-linked agammaglobulinemia and X-linked immunodeficiency genes. *Science* 261: 355-358.
3. Tamagnone, L., et al. 1994. BMX, a novel nonreceptor tyrosine kinase gene of the BTK/ITK/TEC/TXK family located in chromosome Xp22.2. *Oncogene* 9: 3683-3688.
4. Haire, R.N., et al. 1994. TXK, a novel human tyrosine kinase expressed in T cells shares sequence identity with Tec family kinases and maps to 4p12. *Hum. Mol. Genet.* 3: 897-901.

CHROMOSOMAL LOCATION

Genetic locus: BMX (human) mapping to Xp22.2; Bmx (mouse) mapping to X F5.

SOURCE

Bmx (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Bmx of human 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-8873 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Bmx (N-16) is recommended for detection of Bmx 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

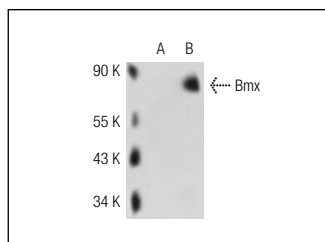
Bmx (N-16) is also recommended for detection of Bmx in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Bmx siRNA (h): sc-38941, Bmx siRNA (m): sc-38942, Bmx shRNA Plasmid (h): sc-38941-SH, Bmx shRNA Plasmid (m): sc-38942-SH, Bmx shRNA (h) Lentiviral Particles: sc-38941-V and Bmx shRNA (m) Lentiviral Particles: sc-38942-V.

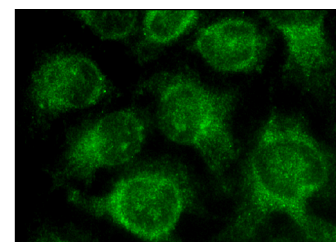
Molecular Weight of Bmx: 85 kDa.

Positive Controls: Bmx (h): 293T Lysate: sc-113287 or Jurkat whole cell lysate: sc-2204.

DATA



Bmx (N-16): sc-8873. Western blot analysis of Bmx expression in non-transfected: sc-117752 (A) and human Bmx transfected: sc-113287 (B) 293T whole cell lysates.



Bmx (N-16): sc-8873. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Lachance, G., et al. 2002. Chemotactic factor-induced recruitment and activation of Tec family kinases in human neutrophils. Implication of phosphatidylinositol 3-kinases. *J. Biol. Chem.* 277: 21537-21541.
2. Gilbert, C., et al. 2003. Chemotactic factor-induced recruitment and activation of Tec family kinases in human neutrophils. II. Effects of LFM-A13, a specific Btk inhibitor. *J. Immunol.* 170: 5235-5243.
3. Popa-Nita, O., et al. 2008. Crystal-induced neutrophil activation: X. Proinflammatory role of the tyrosine kinase Tec. *Arthritis Rheum.* 58: 1866-1876.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **Bmx (C-4): sc-376686** or **Bmx (D-6): sc-271706**, our highly recommended monoclonal alternatives to Bmx (N-16).