

## Technical Data Sheet

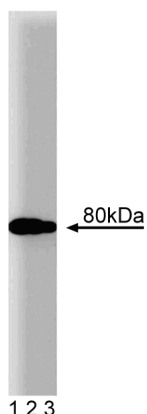
**Purified Mouse Anti-BMX****Product Information**

<b>Material Number:</b>	<b>610792</b>
<b>Size:</b>	50 µg
<b>Concentration:</b>	250 µg/ml
<b>Clone:</b>	40/BMX
<b>Immunogen:</b>	Human BMX aa. 138-276
<b>Isotype:</b>	Mouse IgG1
<b>Reactivity:</b>	QC Testing: Human Tested in Development: Mouse, Chicken
<b>Target MW:</b>	80 kDa
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

**Description**

BMX (bone marrow X kinase) is a cytoplasmic tyrosine kinase identified by reverse transcription of mRNA isolated from human bone marrow and mapped to the chromosomal band Xp22.2. The full length protein is 675 amino acids with a tyrosine kinase domain, an amino terminal pleckstrin domain, as well as an SH3 and SH2 domain. Direct comparison of BMX's primary sequence with other kinases showed that this is highly related to the family of BTK/ITK/TEC. BMX kinase is expressed in fetal and adult tissues, with the highest expression in heart, testis, small intestine and colon. It is undetectable in spleen, brain, kidney, and pancreas. Further analysis of mRNA expression showed that BMX is expressed in hematopoietic tissues and neutrophilic granulocytes, and in patients with acute and myeloid leukemia. The levels of BMX mRNA were substantially lower in patients with acute and chronic lymphoid leukemias, thus suggesting that BMX may be important during myelopoiesis.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



**Western blot analysis of BMX on Jurkat lysate.** Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of anti-BMX.

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## Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20° C.

## Application Notes

### Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunoprecipitation	Not Recommended
Immunohistochemistry	Not Recommended

## Suggested Companion Products

Catalog Number	Name	Size	Clone
611451	Jurkat Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

## References

Kaukonen J, Lahtinen I, Laine S, Alitalo K, Palotie A. BMX tyrosine kinase gene is expressed in granulocytes and myeloid leukaemias. *Br J Haematol.* 1996; 94(3):455-460.(Biology)

Rajantie I, Ekman N, Ilijin K. Bmx tyrosine kinase has a redundant function downstream of angiopoietin and vascular endothelial growth factor receptors in arterial endothelium. *Mol Cell Biol.* 2001; 21(14):4647-4655.(Clone-specific: Western blot)

Tamagnone L, Lahtinen I, Mustonen T. BMX, a novel nonreceptor tyrosine kinase gene of the BTK/ITK/TEC/TKX family located in chromosome Xp22.2. *Oncogene.* 1994; 9(12):3683-3688.(Biology)

Vargas L, Nore BF, Berglof A. Functional interaction of caveolin-1 with Bruton's tyrosine kinase and Bmx. *J Biol Chem.* 2002; 277(11):9351-9357.(Clone-specific: Immunoprecipitation, Western blot)