

Product datasheet for **MR226349**

Bmx (NM_009759) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Bmx (NM_009759) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Bmx
Synonyms:	Etk; Etk/Bmx; Tyro8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>MR226349 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGAGTAAATCCATTCTGGAAGAACTGCTTCTCAAAAAGTCACAGCAAAAAGAAGAAAATGTCACCAA
 ATAATTACAAGGAGCGGCTTTTTGTTCTAACCAAAACAAGCCTTTCCTACTATGAATACGACAAAATGAA
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 CAGACACCGGTGGAGAGACAGTACCCATTTAGATTGTGTATAAAGATGGGCTTCTTTATGTCTATGCAT
 CGAATGAAGAGAGCCGATGTCAGTGGTAAAAGCGCTGCAAAAAGAGATACGGGGCAACCTCACCTGTT
 GATCAAGTATCACAGTGGCTTCTTTGGGATGGAAAGTTCCTGTGTTGCCAGCAGAGCTGCAAAAGCAGCC
 CCAGGATGCCTCTCTGGGAAGCATATGCTGATCTGCACATCGCAATCAGTGATGAGAAACAGAGCTC
 CCACTTTCCAGAGAGGCTACTGAAGATTCCAAGGGCAGTCCCCTTCTCAAAAATGGATGCATCATCTTC
 AGGTGCCATTCTACCCAATATGACAGCTATTCAAAGAAAAGTTGTGTTCCAGCCAACCAGCAACATA
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 GTCAAGTTCATCAGAAGAAGAGGAAAATCTGCATGCTTATGACTGGTTTGTCTGGGAATATCTCCAGGTCA
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 GAAATGTGTTATGATGTCTGTGAAGGCATGGCCTTCTTGGAGAGCCATCAGTTCATACATCGAGATTTGG
 CTGCTCGAACTGTTGGTGGACAGTGTCTCTGTGAAAGTCTCAGACTTTGGAATGACGAGATATGT
 CCTTGATGATCAGTATGTCAGCTCAGTAGGAACCAAGTTCCAGTCAAGTGGTCCAGCTCCAGAGGTGTT
 CACTACTCAAAATACAGCAGCAAGTCGGATGTATGGGCATTTGGGATCCTGATGTGGGAGGTGTTTAGTC
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 CTACCGGCCCAACTGGCATCAGACACCATCTACCAGATCATGTACAGCTGCTGGCATGAGCTTCCAGAA
 AAGCGCCCCACATTTAGCAACTCTGTCTGCCATAGAACCACCTTCGGGAACAAGATAAACCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR226349 protein sequence
Red=Cloning site Green=Tags(s)

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MESKSILEELLKKSQKKKMSPNNYKERL FVLTKTSLSYEYDKMKRGRKGSIEIKKIRCVEKVNLEE
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PGCTLWEAYADLHIAISDEKHRAPTFPERLLKIPRAVPVLKMDASSGAILPQYDSYKKSCGSQPTSNI
RYIPREDCPDWWQVRKLKSEEDIACSNQLERNIASHSTSKMSWGFPESSSSEEEENLHAYDWFAGNISRS
QSEQLLRQKGKEGAFMVRNSSQMGMYTVSLF SKAVNDKKGTVKHVHTNAENKLYLAENYCFDSIPKLI
HYHQHNSAGMITRLRHPVSTKANKVPVSVVALGSGIWELKREEITLLKELGNGQFVVVQLGQWKGYDVAV
KMIKEGAMSEDEFFQEAQTMMKLSHPKLVKFGVCSKKYPIYIVTEYITNGCLLNLYLKSHGKLESCQLL
EMCYDVCGEAMFLESHQFIHRDLAARNCLVSDLSVKVSDFGMTRYVLDQYVSSVGTGKFPVKSAPVVF
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KRPTFQQLLSAIEPLREQDKP
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_009759

ORF Size: 1956 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_009759.4](#), [NP_033889.2](#)

RefSeq Size: 3005 bp

RefSeq ORF: 1968 bp

Locus ID: 12169

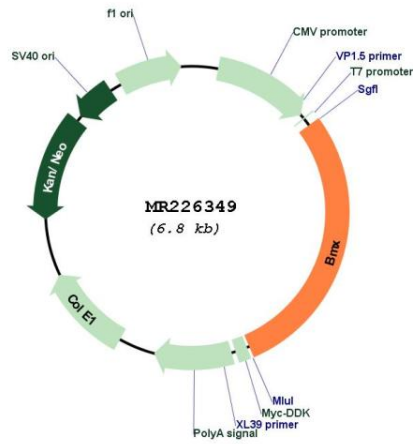
UniProt ID: [P97504](#)

Cytogenetics: X F5

MW: 75 kDa

Gene Summary: Non-receptor tyrosine kinase that plays central but diverse modulatory roles in various signaling processes involved in the regulation of actin reorganization, cell migration, cell proliferation and survival, cell adhesion, and apoptosis. Participates in signal transduction stimulated by growth factor receptors, cytokine receptors, G-protein coupled receptors, antigen receptors and integrins. Induces tyrosine phosphorylation of BCAR1 in response to integrin regulation. Activation of BMX by integrins is mediated by PTK2/FAK1, a key mediator of integrin signaling events leading to the regulation of actin cytoskeleton and cell motility. Plays a critical role in TNF-induced angiogenesis, and implicated in the signaling of TEK and FLT1 receptors, 2 important receptor families essential for angiogenesis. Required for the phosphorylation and activation of STAT3, a transcription factor involved in cell differentiation. Also involved in interleukin-6 (IL6) induced differentiation. Plays also a role in programming adaptive cytoprotection against extracellular stress in different cell systems, salivary epithelial cells, brain endothelial cells, and dermal fibroblasts. May be involved in regulation of endocytosis through its interaction with an endosomal protein RUFY1. May also play a role in the growth and differentiation of hematopoietic cells; as well as in signal transduction in endocardial and arterial endothelial cells.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR226349