

BMX Protein, Human (Sf9, His)

Cat. No.:	HY-P701712
Synonyms:	BMX; Cytoplasmic tyrosine-protein kinase BMX; Bone marrow tyrosine kinase gene in chromosome X protein; Epithelial and endothelial tyrosine kinase; ETK; NTK38
Species:	Human
Source:	Sf9 insect cells
Accession:	P51813 (E411-H675)
Gene ID:	660
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	<p>BMX Protein, a non-receptor tyrosine kinase, assumes central and diverse modulatory roles in various signaling pathways governing actin reorganization, cell migration, proliferation, survival, adhesion, and apoptosis. It actively participates in signal transduction initiated by growth factor receptors, cytokine receptors, G-protein coupled receptors, antigen receptors, and integrins. BMX induces tyrosine phosphorylation of BCAR1 in response to integrin regulation, facilitated by PTK2/FAK1, a pivotal mediator of integrin signaling events crucial for actin cytoskeleton regulation and cell motility. It plays a critical role in TNF-induced angiogenesis and is implicated in the signaling of TEK and FLT1 receptors, both essential for angiogenesis. BMX is indispensable for the phosphorylation and activation of STAT3, a transcription factor crucial in cell differentiation, and is involved in interleukin-6 (IL6) induced differentiation. Additionally, BMX plays a role in programming adaptive cytoprotection against extracellular stress in various cell systems, including salivary epithelial cells, brain endothelial cells, and dermal fibroblasts. Its potential involvement in the regulation of endocytosis through interaction with the endosomal protein RUFY1 and its role in the growth and differentiation of hematopoietic cells further underscore its multifaceted functions. Additionally, BMX contributes to signal transduction in endocardial and arterial endothelial cells.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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