

## BLK Protein, Human (sf9, GST)

<b>Cat. No.:</b>	HY-P72853
<b>Synonyms:</b>	Tyrosine-protein kinase Blk; B lymphocyte kinase; p55-Blk; BLK
<b>Species:</b>	Human
<b>Source:</b>	Sf9 insect cells
<b>Accession:</b>	P51451 (M1-P505)
<b>Gene ID:</b>	640
<b>Molecular Weight:</b>	Approximately 84 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> MGLVSSKKPD   KEKPIKEKDK   GQWSPLKVSA   QDKDAPPLPP LVVFNHLTPP   PPDEHLDEDK   HFVVALYDYT   AMNDRDLQML KGEKQLQVLKG   TGDWWLARS L   VTGREGYVPS   NFVARVESLE MERWFFRSQG   RKEAERQLLA   PINKAGSFLI   RESETNKGAF SLSVKDVT TQ   GELIKHYKIR   CLDEGGYYIS   PRITFPSLQA LVQHYSKKGD   GLCQRLTLPC   VRPAPQNPWA   QDEWEIPRQS LRLVVRKLGSG   QFGEVWMGY Y   KNNMKVAIKT   LKEGTMSPEA FLGEANVMKA   LQHERLVRLY   AVVTKEPIYI   VTEYMARGCL LDFLKTDEGS   RLSLPRLIDM   SAQIAEGMAY   IERMNSIHRD LRAANILVSE   ALCKKIADFG   LARIIDSEYT   AQEGAKFPIK WTAPEA IHFG   VFTIKADVWS   FGVLLMEVVT   YGRVPYPGMS NPEVIRNLER   GYRMPRPDTC   PPELYRGVIA   ECWRSRPEER PTFEFLQSVL   EDFYTATERQ   YELQP </pre>
<b>Biological Activity</b>	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
<b>Appearance</b>	Solution.
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution of 20 mM Tris, 500 mM NaCl, 5 mM GSH, pH 7.4
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	Please use rapid thawing with running water to thaw the protein.
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Shipping with dry ice.

## DESCRIPTION

### Background

BLK Protein, a non-receptor tyrosine kinase, plays a vital role in B-lymphocyte development, differentiation, and signaling. Critical for B-cell receptor (BCR) signaling, BLK regulates the pro-B to pre-B transition, growth arrest, and apoptosis downstream of the B-cell receptor. It specifically binds and phosphorylates CD79A and CD79B, essential components of the BCR complex. In conjunction with FYN and LYN, BLK contributes to pre-B-cell receptor-mediated NF-kappa-B activation and indirectly stimulates BTK intramolecular autophosphorylation. Additionally, in pancreatic islets, BLK modulates beta-cell function, promoting insulin secretion in response to glucose by up-regulating PDX1 and NKX6-1. Furthermore, BLK phosphorylates CGAS, influencing its subcellular localization and function.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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