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Product datasheet

Recombinant Human BLNK protein ab104120

1 Image

Description

Product name Recombinant Human BLNK protein

Purity > 90 % SDS-PAGE.

Purified by using anion-exchange chromatography (DEAE sepharose resin) and gel-filtration

chromatography (Sephacryl S-200) with 20mM Tris pH 7.5, 2mM EDTA.

Expression system Escherichia coli

Accession Q8WV28

Protein length Full length protein

Animal free No

Nature Recombinant

Species Human

Sequence MGSSHHHHHH SSGLVPRGSH MDKLNKITVP

ASQKLRQLQK MVHDIKNNEG GIMNKIKKLK
VKAPPSVPRR DYASESPADE EQQWSDDFDS
DYENPDEHSD SEMYVMPAEE NADDSYEPPP
VEQETRPVHP ALPFARGEYI DNRSSQRHSP
PFSKTLPSKP SWPSEKARLT STLPALTALQ
KPQVPPKPKG LLEDEADYVV PVEDNDENYI
HPTESSSPPP EKAPMVNRST KPNSSTPASP
PGTASGRNSG AWETKSPPPA APSPLPRAGK
KPTTPLKTTP VASQQNASSV CEEKPIPAER
HRGSSHRQEA VQSPVFPPAQ KQIHQKPIPL
PRFTEGGNPT VDGPLPSFSS NSTISEQEAG
VLCKPWYAGA CDRKSAEEAL HRSNKDGSFL

IRKSSGHDSK QPYTLVVFFN KRVYNIPVRF IEATKQYALG RKKNGEEYFG SVAEIIRNHQ HSPLVLIDSQ NNTKDSTRLK

YAVKVS

Predicted molecular weight 53 kDa including tags

Amino acids 1 to 456

Tags His tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab104120** in the following tested applications.

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The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

SDS-PAGE **Applications**

Mass Spectrometry

Mass spectrometry

MALDI-TOF

Form

Liquid

Preparation and Storage

Stability and Storage

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

pH: 8.00

Constituents: 0.00174% PMSF, 0.0154% DTT, 0.316% Tris HCl, 20% Glycerol (glycerin,

glycerine), 0.58% Sodium chloride

General Info

Function

Functions as a central linker protein that bridges kinases associated with the B-cell receptor (BCR) with a multitude of signaling pathways, regulating biological outcomes of B-cell function and development. Plays a role in the activation of ERK/EPHB2, MAP kinase p38 and JNK. Modulates AP1 activation. Important for the activation of NF-kappa-B and NFAT. Plays an important role in BCR-mediated PLCG1 and PLCG2 activation and Ca(2+) mobilization and is required for trafficking of the BCR to late endosomes. However, does not seem to be required for pre-BCR-mediated activation of MAP kinase and phosphatidyl-inositol 3 (Pl3) kinase signaling. May be required for the RAC1-JNK pathway. Plays a critical role in orchestrating the pro-B cell to pre-B cell transition (By similarity). Plays an important role in BCR-induced B-cell apoptosis.

Tissue specificity

Expressed in B-cell lineage and fibroblast cell lines (at protein level). Highest levels of expression in the spleen, with lower levels in the liver, kidney, pancreas, small intestines and colon.

Involvement in disease

Defects in BLNK are the cause of agammaglobulinemia type 4 (AGM4) [MIM:613502]. It is a primary immunodeficiency characterized by profoundly low or absent serum antibodies and low or absent circulating B cells due to an early block of B-cell development. Affected individuals develop severe infections in the first years of life.

Sequence similarities

Contains 1 SH2 domain.

Post-translational modifications

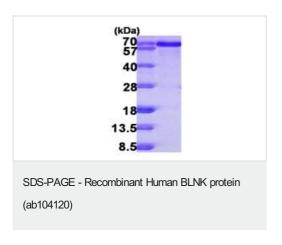
Following BCR activation, phosphorylated on tyrosine residues by SYK and LYN. When phosphorylated, serves as a scaffold to assemble downstream targets of antigen activation, including PLCG1, VAV1, GRB2 and NCK1. Phosphorylation of Tyr-84, Tyr-178 and Tyr-189 facilitates PLCG1 binding. Phosphorylation of Tyr-96 facilitates BTK binding. Phosphorylation of Tyr-72 facilitates VAV1 and NCK1 binding. Phosphorylation is required for both Ca(2+) and

MAPK signaling pathways.

Cellular localization

Cytoplasm. Cell membrane. BCR activation results in the translocation to membrane fraction.

Images



15% SDS-PAGE analysis of ab104120 (3 μg).

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