abcam

Product datasheet

Recombinant human ABL1 protein ab69810

1 References 5 Images

Description

Product name	Recombinant human ABL1 protein
Biological activity	Specific activity: 871 nmol/min/mg
Purity	> 70 % Affinity purified. Purified by affinity chromatography
Expression system	Baculovirus infected Sf9 cells
Accession	P00519
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	EALQRPVASD FEPQGLSEAA RWNSKENLLA GPSENDPNLF VALYDFVASG DNTLSITKGE KLRVLGYNHN GEWCEAQTKN GQGWVPSNYI TPVNSLEKHS WYHGPVSRNA AEYLLSSGIN GSFLVRESES SPGQRSISLR YEGRVYHYRI NTASDGKLYV SSESRFNTLA ELVHHHSTVA DGLITTLHYP APKRNKPTVY GVSPNYDKWE MERTDITMKH KLGEGHFGEV YEGVWKKYSL TVAVKTLKED TMEVEEFLKE AAVMKEIKHP NLVQLLGVCT REPPFYIITE FMTYGNLLDY LRECNRQEVN AVVLLYMATQ ISSAMEYLEK KNFIHRDLAA RNCLVGENHL VKVADFGLSR LMTGDTYTAH AGAKFPIKWT APESLAYNKF SIKSDVWAFG VLLWEIATYG MSPYPGIDLS QVYELLEKDY RMERPEGCPE KVYELMRACW QWNPSDRPSF AEIHQAFETM FQESSISDEV EKELGKQGVR GAVSTLLQAP ELPTKTRTSR RAAEHRDTTD VPEMPHSKGQ GESDPLDHEP AVSPLLPRKE RGPPEGGLNE DERLLPKDKK TNLFSALIKK KKKTAPTPPK RSSSFREMDG QPERRGAGEE EGRDISNGAL AFTPLDTADP AKSPKPSNGA GVPNGALRES GGSGFRSPHL WKKSSTLTSS RLATGEEEGG GSSSKRFLRS CSASCVPHGA KDTEWRSVTL PRDLQSTGRQ FDSSTFGGHK SEKPALPRKR AGENRSDQVT RGTVTPPPRL

VKKNEEAADE VFKDIMESSP GSSPPNLTPK
PLRRQVTVAP ASGLPHKEEA GKGSALGTPA
AAEPVTPTSK AGSGAPGGTS KGPAEESRVR
RHKHSSESPG RDKGKLSRLK PAPPPPPAAS
AGKAGGKPSQ SPSQEAAGEA VLGAKTKATS
LVDAVNSDAA KPSQPGEGLK KPVLPATPKP
QSAKPSGTPI SPAPVPSTLP SASSALAGDQ PSSTAFIPLI
STRVSLRKTR QPPERIASGA ITKGVVLDST EALCLAISRN
SEQMASHSAV LEAGKNLYTF CVSYVDSIQQ
MRNKFAFREA INKLENNLRE LQICPATAGS
GPAATQDFSK LLSSVKEISD IVQR

Predicted molecular weight	135 kDa
Amino acids	27 to 1130
Tags	His tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab69810** in the following tested applications.

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

Applications	Functional Studies SDS-PAGE
Form	Liquid
Additional notes	**ab204848** (ABL1 peptide) can be utilized as a substrate for assessing Kinase activity Previously labelled as c Abl.

Preparation and Storage

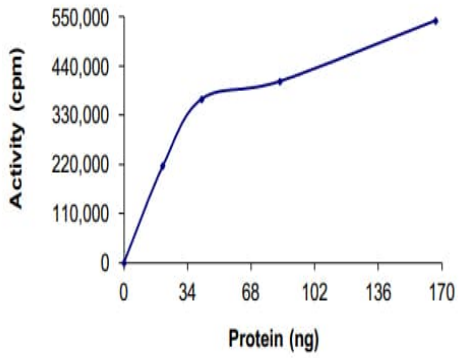
Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. pH: 7 Constituents: 0.0038% EGTA, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 0.00292% EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

Function	Protein kinase that regulates key processes linked to cell growth and survival. Regulates cytoskeleton remodeling during cell differentiation, cell division and cell adhesion. Localizes to dynamic actin structures, and phosphorylates CRK and CRKL, DOK1, and other proteins controlling cytoskeleton dynamics. Regulates DNA repair potentially by activating the proapoptotic pathway when the DNA damage is too severe to be repaired. Phosphorylates PSMA7 that leads to an inhibition of proteasomal activity and cell cycle transition blocks.
Tissue specificity	Widely expressed.
Involvement in disease	Note=A chromosomal aberration involving ABL1 is a cause of chronic myeloid leukemia. Translocation t(9;22)(q34;q11) with BCR. The translocation produces a BCR-ABL found also in acute myeloid leukemia (AML) and acute lymphoblastic leukemia (ALL).

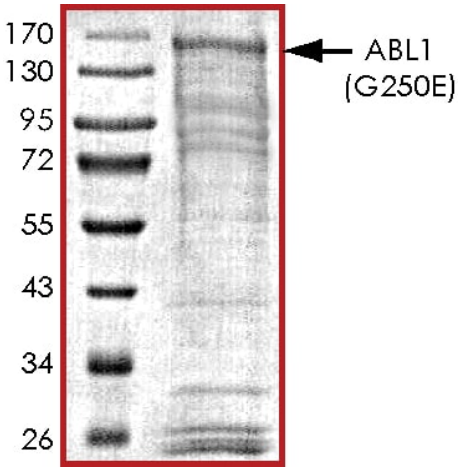
Sequence similarities	Belongs to the protein kinase superfamily. Tyr protein kinase family. ABL subfamily. Contains 1 protein kinase domain. Contains 1 SH2 domain. Contains 1 SH3 domain.
Post-translational modifications	Phosphorylated by PRKDC (By similarity). DNA damage-induced activation of c-Abl requires the function of ATM and Ser-446 phosphorylation (By similarity). Phosphorylation on Thr-735 is required for binding 14-3-3 proteins for cytoplasmic translocation. Isoform IB is myristoylated on Gly-2.
Cellular localization	Cytoplasm > cytoskeleton. Nucleus. Sequestered into the cytoplasm through interaction with 14-3-3 proteins and Nucleus membrane. The myristoylated c-ABL protein is reported to be nuclear.

Images



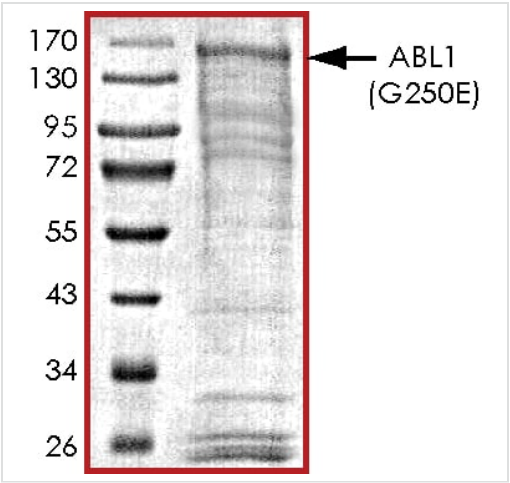
Functional Studies - Recombinant human ABL1 protein (ab69810)

The specific activity of ABL1 (ab69810) was determined to be 765.8 nmol/min/mg as per activity assay protocol



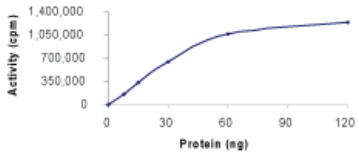
SDS-PAGE - Recombinant human ABL1 protein (ab69810)

SDS PAGE analysis of ab69810



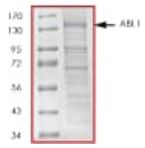
SDS PAGE analysis of ab69810

SDS-PAGE - Recombinant human ABL1 protein (ab69810)



Kinase activity assay of ab69810. The specific activity of c-Abl was determined to be 871 nmol/min/mg.

Functional Studies - Recombinant human ABL1 protein (ab69810)



SDS-PAGE of ab69810. Molecular weight 135kDa.

SDS-PAGE - Recombinant human ABL1 protein (ab69810)

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