abcam

Product datasheet

Recombinant mouse ABL1 protein ab157053

Description

Product name	Recombinant mouse ABL1 protein
Purity	>= 70 % SDS-PAGE.
Expression system	Insect cells
Accession	P00520
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Mouse
Sequence	EALQRPVASDFEPQGLSEAARWNSKENLLAGPSENDPN LFVALYDFVASG DNTLSITKGEKLRVLGYNHNGEWCEAQTKNGQGWVPSNYI TPVNSLEKHS WYHGPVSRNAAEYLLSSGINGSFLVRESESSPGQRSISLR YEGRVYHYRI NTASDGKLYVSSESRFNTLAELVHHHSTVADGLITTLHYPA PKRNKPTIY GVSPNYDKWEMERTDITMKHKLGGGQYGEVYEGVWKKY SLTVAVKTLKED TMEVEEFLKEAAVMKEIKHPNLVQLLGVCTREPPFYIITEF MTYGNLLDY LRECNRQEVSAVVLLYMATQISSAMEYLEKKNFIHRDLAA RNCLVGENHL VKVADFGLSRLMTGDTYTAHAGAKFPIKWTAPESLAYNKF SIKSDVWAFG VLLWEIATYGMSPYPGIDLSQVYELLEKDYRMERPEGCPE KVYELMRACW QWNPSDRPSFAEIHQAFETMFQESSISDEVEKELGKRGT RGGAGSMLQAP ELPTKTRTCRRAAEQKDAPDTPELLHTKGLGESDALDSE PAVSPLLPRKE RGPPDGSLNEDERLLPRDRKTNLFSALIKKKKKMAPTPPK RSSSFREMDG QPDRRGASEDDSRELCNGPPALTSDAAEPTKSPKASNG AGVPNGAFREPG

NSGFRSPHMWKKSSTLTGSRLAAAEEESGMSSSKRFLR
SCSASCMPHGAR
DTEWRSVTLPRDLPSAGKQFDSSTFGGHKSEKPALPRK
RTSESRSEQVAK
STAMPPPRLVKKNEEAAEEGFKDTESSPGSSPPSLTPKL
LRRQVTASPSS
GLSHKEEATKGSASGMGTPATAEPAPPSNKVGLSKASS
EEMRVRRHKHSS
ESPGRDKGRLAKLKPAPPPPPACTGKAGKPAQSPSQEA
GEAGGPTKTKCT
SLAMDAVNTDPTKAGPPGEGLRKPVPPSVPKPQSTAKP
PGTPTSPVSTPS
TAPAPSPLAGDQQPSSAAFIPLISTRVSLRKTRQPPERIAS
GTITKGVVL
DSTEALCLAISRNSEQMASHSAVLEAGKNLYTFCVSYVDS
IQQMRNKFAF
REAINKLESNLRELQICPATASSGPAATQDFSKLLSSVKEI
SDIVRR

Predicted molecular weight	135 kDa including tags
Amino acids	27 to 1123
Tags	His tag N-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab157053** 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	820 nmol/min/mg using a peptide substrate, EAIYAAPFAKKK, in 25 mM MOPS, pH 7.2, containing 12.5 mM ß-glycerol-phosphate, 25 mM MgCl2, 5 mM EGTA, 2 mM EDTA. Add 0.25 mM DTT to assay buffer prior to use. Previously labelled as c Abl.

Preparation and Storage

Stability and Storage	Shipped at 4°C. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. Constituents: 0.004% EGTA, 0.002% PMSF, 0.004% (R*,R*)-1,4-Dimercaptobutan-2,3-diol, 0.61% Tris, 0.003% EDTA, 25% Glycerol (glycerin, glycerine), 0.88% 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.