

Product datasheet

Recombinant human ABL2 protein ab51259

1 Image

Overview

Product name Recombinant human ABL2 protein

Protein length Protein fragment

Description

Nature Recombinant

Source Baculovirus infected Sf9 cells

Amino Acid Sequence

Accession [P42684-3](#)

Species Human

Amino acids 38 to 1167

Tags His tag N-Terminus

Specifications

Our [Abpromise guarantee](#) covers the use of **ab51259** 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

Form Liquid

Additional notes [ab204848](#) (c Abl peptide) can be utilized as a substrate for assessing Kinase activity

Preparation and Storage

Stability and Storage Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

Preservative: 150mM Imidazole

Constituents: 25% Glycerol, 50mM Sodium phosphate, 300mM Sodium chloride, 0.2mM DTT, 0.1mM PMSF, pH 7

This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

Function

Non-receptor tyrosine-protein kinase that plays an ABL1-overlapping role in key processes linked to cell growth and survival such as cytoskeleton remodeling in response to extracellular stimuli, cell motility and adhesion and receptor endocytosis. Coordinates actin remodeling through tyrosine phosphorylation of proteins controlling cytoskeleton dynamics like MYH10 (involved in movement); CTTN (involved in signaling); or TUBA1 and TUBB (microtubule subunits). Binds directly F-actin and regulates actin cytoskeletal structure through its F-actin-bundling activity. Involved in the regulation of cell adhesion and motility through phosphorylation of key regulators of these processes such as CRK, CRKL, DOK1 or ARHGAP35. Adhesion-dependent phosphorylation of ARHGAP35 promotes its association with RASA1, resulting in recruitment of ARHGAP35 to the cell periphery where it inhibits RHO. Phosphorylates multiple receptor tyrosine kinases like PDGFRB and other substrates which are involved in endocytosis regulation such as RIN1. In brain, may regulate neurotransmission by phosphorylating proteins at the synapse. ABL2 acts also as a regulator of multiple pathological signaling cascades during infection. Pathogens can hijack ABL2 kinase signaling to reorganize the host actin cytoskeleton for multiple purposes, like facilitating intracellular movement and host cell exit. Finally, functions as its own regulator through autocatalytic activity as well as through phosphorylation of its inhibitor, ABL1.

Tissue specificity

Widely expressed.

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.

Domain

Contains two distinct classes of F-actin-binding domains. Although both can bind F-actin, the 2 are required to bundle actin filaments.

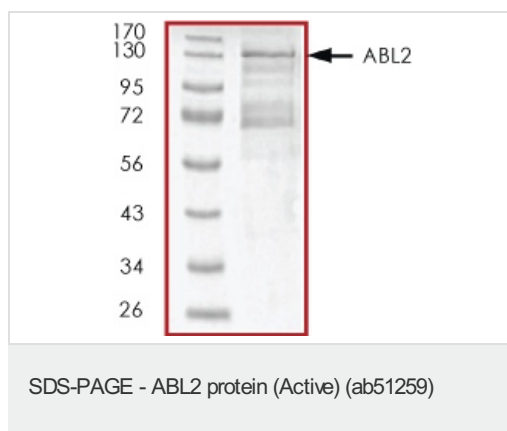
Post-translational modifications

Phosphorylated at Tyr-261 by ABL1 in response to oxidative stress. Phosphorylated by PDGFRB.
 Polyubiquitinated. Polyubiquitination of ABL2 leads to degradation.

Cellular localization

Cytoplasm, cytoskeleton.

Images



Sample Purity Data.

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