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
Expression system: Baculovirus infected Sf9 cells
Accession: P00519
Protein length: Protein fragment
Animal free: No
Nature: Recombinant
Species: Human
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 -80°C. Avoid freeze / thaw cycles.
pH: 7.50
Constituents: 0.0038% EGTA, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 0.00292% EDTA, 25% Glycerol, 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

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

![Graph](functional-studies-recombinant-human-abl1-protein-ab69810.png)
SDS-PAGE - Recombinant human ABL1 protein (ab69810)

SDS-PAGE analysis of ab69810

SDS-PAGE - Recombinant human ABL1 protein (ab69810)

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

SDS-PAGE of ab69810. Molecular weight 135kDa.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors