

## Product datasheet

# Recombinant human ABL1 (mutated V299L) protein ab207973

[4 Images](#)

### Description

<b>Product name</b>	Recombinant human ABL1 (mutated V299L) protein
<b>Biological activity</b>	The specific activity of ab207973 was determined to be 105 nmol/min/mg
<b>Purity</b>	> 70 % Densitometry. Affinity purified.
<b>Expression system</b>	Baculovirus infected Sf9 cells
<b>Accession</b>	<b><u>P00519</u></b>
<b>Protein length</b>	Protein fragment
<b>Animal free</b>	No
<b>Nature</b>	Recombinant
<b>Species</b>	Human
<b>Predicted molecular weight</b>	160 kDa including tags
<b>Amino acids</b>	27 to 1130
<b>Modifications</b>	mutated V299L
<b>Tags</b>	GST tag N-Terminus
<b>Additional sequence information</b>	NM_005157

### Specifications

Our **Abpromise guarantee** covers the use of **ab207973** in the following tested applications.

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

<b>Applications</b>	Functional Studies SDS-PAGE
<b>Form</b>	Liquid
<b>Additional notes</b>	Previously labelled as c Abl.

### Preparation and Storage

<b>Stability and Storage</b>	Shipped on Dry Ice. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle.
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pH: 7.50

Constituents: 0.79% Tris HCl, 0.87% Sodium chloride, 0.31% Glutathione, 0.003% EDTA, 0.004% DTT, 0.002% PMSF, 25% Glycerol (glycerin, glycerine)

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.

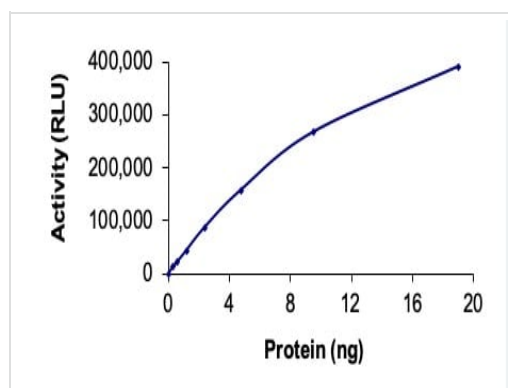
### Post-translational modifications

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

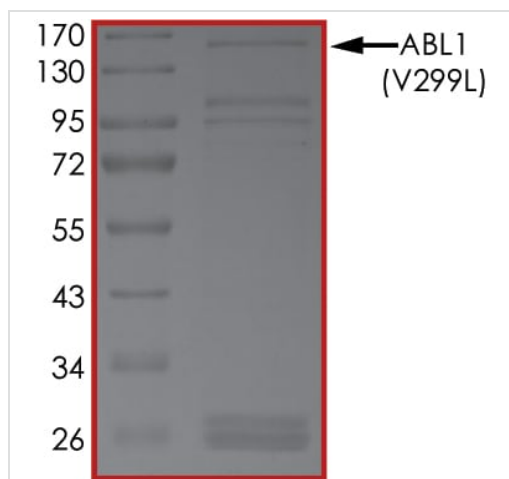
Cytoplasm > cytoskeleton. Nucleus. Sequestered into the cytoplasm through interaction with 14-3-3 proteins and Nucleus membrane. The myristoylated c-ABL protein is reported to be nuclear.

## Images



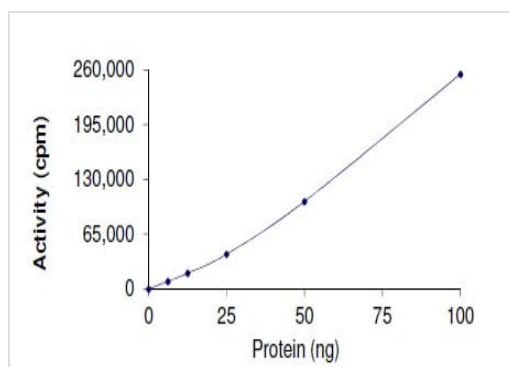
The specific activity of ABL1 (ab207973) was determined to be 130 nmol /min/mg as per activity assay protocol.

Functional Studies - Recombinant human ABL1  
(mutated V299L) protein (ab207973)



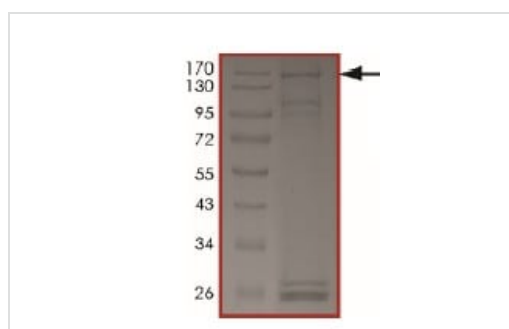
SDS PAGE analysis of ab207973

SDS-PAGE - Recombinant human ABL1 (mutated V299L) protein (ab207973)



Kinase Assay demonstrating specific activity of ab207973

Functional Studies - Recombinant human ABL1 (mutated V299L) protein (ab207973)



SDS-PAGE showing ab207973

SDS-PAGE - Recombinant human ABL1 (mutated V299L) protein (ab207973)

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