

Product datasheet

ABL1 peptide **ab204848**

Description

Product name	ABL1 peptide
Purity	> 97 % HPLC.
Animal free	No
Nature	Synthetic
Sequence	EAIYAAPFAKKK

Specifications

Our **Abpromise guarantee** covers the use of **ab204848** in the following tested applications.

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

Applications	HPLC
Form	Lyophilized
Additional notes	ab204848 (ABL1 peptide) can be utilized as a substrate for the following active protein kinases:

ab69810 (Active human ABL1 protein fragment)

ab51259 (Active human ABL2 protein fragment)

ab179494 (Active human LTK protein fragment)

ab177265 (Active human GLK protein fragment)

Previously labelled as c Abl.

Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at -20°C. Avoid freeze / thaw cycle.
Reconstitution	Dilute peptide in distilled water to a final concentration of 1mg/ml

General Info

Function	Protein kinase that regulates key processes linked to cell growth and survival. Regulates
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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.

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