


Product datasheet

Anti-c Abl (phospho Y412) antibody ab4717

3 References 画像数 1

製品の概要

<b>製品名</b>	Anti-c Abl (phospho Y412) antibody
<b>製品の詳細</b>	Rabbit polyclonal to c Abl (phospho Y412)
<b>アプリケーション</b>	<b>適用あり:</b> WB
<b>種交差性</b>	<b>交差種:</b> Human <b>交差が予測される動物種:</b> Mouse 
<b>免疫原</b>	The antiserum was produced against a chemically synthesized phosphopeptide derived from a region of human c-Abl 1b that contains tyrosine 412. Note: there are two widely expressed forms of c-Abl produced by alternative splicing, designated 1b (the more common form) and 1a. The corresponding phosphorylation site from 1a is tyrosine 393.
<b>ポジティブ・コントロール</b>	Fibroblasts transfected with oncogenic ΔSH3-Abl.
<b>特記事項</b>	c-Abl is a 140-150 kDa non-receptor protein tyrosine kinase whose precise functions are not known, but roles for Abl in growth factor and integrin signaling, cell cycle regulation, cytoskeletal reorganization, neurogenesis, and responses to DNA damage and oxidative stress have been suggested. c-Abl kinase activity is increased in vivo by diverse physiological stimuli including ionizing radiation, entry into S phase, integrin activation, and platelet-derived growth factor (PDGF) stimulation. c-Abl contains various protein binding domains that appear to enable it to regulate the functions of many proteins by forming complexes, most notably three isoforms of the oncogenic protein Bcr/Abl. c-Abl becomes fully activated by sequential phosphorylation of tyrosines 412 and 245.

製品の特性

<b>製品の状態</b>	Liquid
<b>保存方法</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
<b>バッファー</b>	Preservative: 0.05% Sodium Azide Constituents: PBS (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), 1.0mg/ml BSA (IgG, protease free). pH 7.3
<b>精製度</b>	Immunogen affinity purified
<b>特記事項 (精製)</b>	Purified from rabbit serum by sequential epitope-specific chromatography. The antibody has been negatively pre-adsorbed using a non-phosphopeptide corresponding to the site of phosphorylation to remove antibody that is reactive with non-phosphorylated c-Abl. The final

product is generated by affinity chromatography using a c-Abl derived peptide that is phosphorylated at tyrosine 245.

#### 一次抗体 備考

c-Abl is a 140-150 kDa non-receptor protein tyrosine kinase whose precise functions are not known, but roles for Abl in growth factor and integrin signaling, cell cycle regulation, cytoskeletal reorganization, neurogenesis, and responses to DNA damage and oxidative stress have been suggested. c-Abl kinase activity is increased in vivo by diverse physiological stimuli including ionizing radiation, entry into S phase, integrin activation, and platelet-derived growth factor (PDGF) stimulation. c-Abl contains various protein binding domains that appear to enable it to regulate the functions of many proteins by forming complexes, most notably three isoforms of the oncogenic protein Bcr/Abl. c-Abl becomes fully activated by sequential phosphorylation of tyrosines 412 and 245.

ポリ/モノ

ポリクローナル

アイソタイプ

IgG

#### アプリケーション

Our [Abpromise guarantee](#) covers the use of **ab4717** in the following tested applications.

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

アプリケーション	Abreviews	特記事項
WB		Use a concentration of 0.1 - 1 µg/ml. Detects a band of approximately 140 kDa.

#### ターゲット情報

機能

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.

組織特異性

Widely expressed.

関連疾患

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).

配列類似性

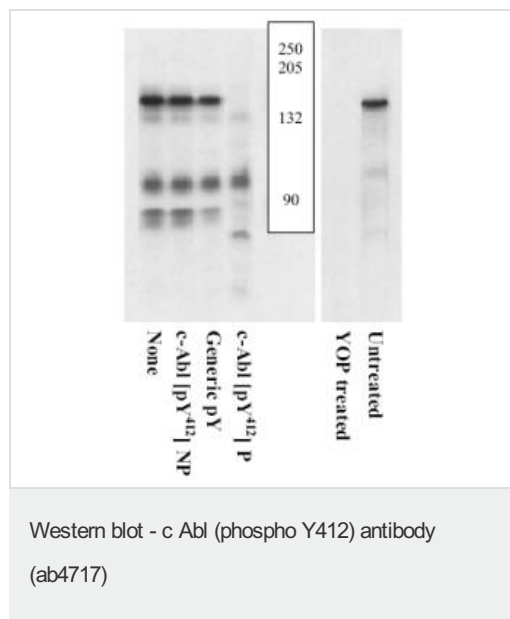
Belongs to the protein kinase superfamily. Tyr protein kinase family. ABL subfamily.  
Contains 1 protein kinase domain.  
Contains 1 SH2 domain.  
Contains 1 SH3 domain.

翻訳後修飾

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.

細胞内局在

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.



**Peptide Competition:** Fibroblasts transfected with oncogenic  $\Delta$ SH3-Abl were resolved by SDS-PAGE on a 10% polyacrylamide gel and transferred to PVDF. Membranes were blocked with a 5% BSA-TBST buffer overnight at 4°C, then were incubated with 0.50  $\mu$ g/mL phospho c-Abl (Tyr 412) antibody for two hours at room temperature in a 3% BSA-TBST buffer, following prior incubation with: no peptide (1), the non-phosphopeptide corresponding to the immunogen (2), a generic phosphotyrosine containing peptide (3), or, the phosphopeptide immunogen (4). After washing, membranes were incubated with goat F(ab')<sub>2</sub> anti-rabbit IgG alkaline phosphatase and signals were detected using the Tropix WesternStar method. The data show that only the peptide corresponding to phospho c-Abl (Tyr 412) blocks the antibody signal, thereby demonstrating the specificity of the antibody.

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