abcam

Product datasheet

Recombinant human ABL2 protein ab51259

画像数3

製品の詳細

製品名 Recombinant human ABL2 protein

精製度 > 70 % Densitometry.

Affinity purified.

発現系 Baculovirus infected Sf9 cells

アクセッション番号 P42684-3

タンパク質長 Protein fragment

Animal free No

由来 Recombinant

生物種 Human

領域 38 to 1167

タグ His tag N-Terminus

特性

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.

アプリケーション Functional Studies

製品の状態 Liquid

備考 <u>ab204848</u> (c Abl peptide) can be utilized as a substrate for assessing Kinase activity

前処理および保存

保存方法および安定性 Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

pH: 7.00

Preservative: 1.02% Imidazole

Constituents: 0.00174% PMSF, 0.82% Sodium phosphate, 0.00308% DTT, 25% Glycerol

(glycerin, glycerine), 1.74% Sodium chloride

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

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機能

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 highjack 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, ABI1.

組織特異性

Widely expressed.

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.

ドメイン

Contains two distinct classes of F-actin-binding domains. Although both can bind F-actin, the $2\,$

are required to bundle actin filaments.

翻訳後修飾

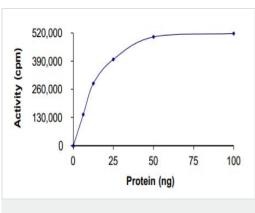
Phosphorylated at Tyr-261 by ABL1 in response to oxidative stress. Phosphorylated by PDGFRB.

Polyubiquitinated. Polyubiquitination of ABL2 leads to degradation.

細胞内局在

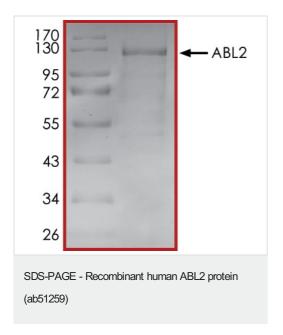
Cytoplasm, cytoskeleton.

画像

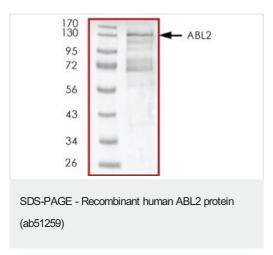


Functional Studies - Recombinant human ABL2 protein (ab51259)

The specific activity of ABL2 (ab51259) was determined to be 1050 nmol/min/mg as per activity assay protocol



SDS PAGE analysis of ab51259



Sample Purity Data.

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