abcam

Product datasheet

Anti-Src (phospho Y419) antibody ab4816

★★★★★ 5 Abreviews 47 References 2 图像

概述

产品名称 Anti-Src (phospho Y419)抗体

描述 兔多克隆抗体to Src (phospho Y419)

宿主 Rabbit

经测试应用 适用于: IHC-P, IHC-FoFr, WB

种属反应性 与反应: Mouse, Chicken, Human

免疫原 Synthetic peptide corresponding to Src (phospho Y419). The sequence is conserved in mouse,

rat, chicken and frog.

常规说明

Src (also known as pp60src) is a non-receptor tyrosine kinase involved in signal transduction in many biological systems and implicated in the development of human tumors. Tyrosine 418 is located in the catalytic domain and is one of the autophosphorylation sites. Full catalytic activity of Src requires phosphorylation of tyrosine 418 (tyrosine 414 on frog Src, tyrosine 416 on chicken Src, and tyrosine 424 on mouse Src). This region of Src is also highly conserved in all of the related Src-family kinases, and thus prior immunoprecipitation may be required to identify which Src family member is being activated.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

性能

形式 Liquid

存放说明 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

存储溶液 pH: 7.30

Preservative: 0.05% Sodium azide

Constituents: PBS, 50% Glycerol, 0.1% BSA

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纯度

Immunogen affinity purified

纯化说明

Purified from rabbit serum by sequential epitope-specific chromatography. The antibody has been negatively pre-adsorbed using (i) a non-phosphopeptide corresponding to the site of phosphorylation to remove antibody that is reactive with non-phosphorylated Src, and (ii) a generic tyrosine phosphorylated peptide to remove antibody that is reactive with phosphotyrosine, irrespective of the sequence. The final product is generated by affinity chromatography using a Src-derived peptide that is phosphorylated at tyrosine 418.

Primary antibody说明

Src (also known as pp60src) is a non-receptor tyrosine kinase involved in signal transduction in many biological systems and implicated in the development of human tumors. Tyrosine 418 is located in the catalytic domain and is one of the autophosphorylation sites. Full catalytic activity of Src requires phosphorylation of tyrosine 418 (tyrosine 414 on frog Src, tyrosine 416 on chicken Src, and tyrosine 424 on mouse Src). This region of Src is also highly conserved in all of the related Src-family kinases, and thus prior immunoprecipitation may be required to identify which Src family member is being activated.

应用

The Abpromise guarantee

Abpromise™承诺保证使用ab4816于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IHC-P		1/10 - 1/100.
IHC-FoFr		Use at an assay dependent concentration. PubMed: 21901128
WB	★★★★ <u>(2)</u>	1/1000. Detects a band of approximately 60 kDa (predicted molecular weight: 60 kDa).

靶标

功能

Non-receptor protein tyrosine kinase that plays pivotal roles in numerous cellular processes such as proliferation, migration, and transformation. In concert with PTK2B, plays an important role in osteoclastic bone resorption. Both the formation of a SRC-PTK2B complex, and SRC kinase activity are necessary for this function. Once it is recruited to the activated integrins, by PTK2B, it phosphorylates CBL which in turn induces the activation and recruitment of phosphatidylinositol 3-kinase to the cell membrane in a signaling pathway that is critical for osteoclast function.

Promotes energy production in osteoclasts by activating mitochondrial cytochrome C oxidase.

Phosphorylates RUNX3 and COX2 on tyrosine residues, TNK2 on 'Tyr-284' and CBL on 'Tyr-731'. Enhances DDX58/RIG-l-elicited antiviral signaling.

序列相似性

Belongs to the protein kinase superfamily. Tyr protein kinase family. SRC subfamily.

Contains 1 protein kinase domain.

Contains 1 SH2 domain. Contains 1 SH3 domain.

翻译后修饰

Dephosphorylated at Tyr-530 by PTPRJ (By similarity). Phosphorylated on Tyr-530 by c-Src

kinase (CSK). The phosphorylated form is termed pp60c-src. Dephosphorylated by PTPRJ at Tyr-419. Normally maintained in an inactive conformation with the SH2 domain engaged with Tyr-530, the SH3 domain engaged with the SH2-kinase linker, and Tyr-419 dephosphorylated. Dephosphorylation of Tyr-530 as a result of protein tyrosine phosphatase (PTP) action disrupts the intramolecular interaction between the SH2 domain and Tyr-530, Tyr-419 can then become autophosphorylated, resulting in SRC activation. Phosphorylation of Tyr-530 by CSK allows this interaction to reform, resulting in SRC inactivation.

S-nitrosylation is important for activation of its kinase activity.

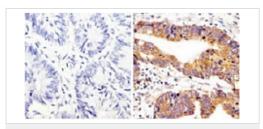
细胞定位

Cell membrane. Mitochondrion inner membrane.

形式

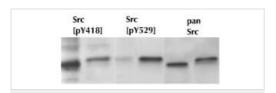
This protein is known to be similar in amino acid sequence to HCK (P08631), LCK (P06239), FYN (P06241), YES1 (P07947), and LYN (P07948). Therefore, cross-reactivity with these homologous proteins may be observed. We would be happy to provide immunogen alignment information upon request.

图片



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Src (phospho Y418) antibody (ab4816)

Immunohistochemical analysis of paraffin embedded Human colon carcinoma, labelling Src with ab4816. A negative control without ab4816 is shown on the left. Antigen retrieval performed using 10mM sodium citrate, microwaved for 8-15mins, blocked using 3% H2O2-methanol, then treated with ab4816 followed by an HRP-conjugated secondary antibody. Counterstaining with hematoxylin.



Western blot - Anti-Src (phospho Y418) antibody (ab4816)

Dr. Michael Schaller, Dept. of Cell Bio. & Anat., Univ. of North Carolina, Chapel Hill, NC.

Western blot detection of Src phosphorylation in extracts of chick embryo fibroblasts expressing wild-type (lanes 2,4,6) or mutant (lanes 1,3,5) pp60src. Truncation of Src at position 518 eliminated phosphorylation at the negative regulatory site [pY529], while increasing phosphorylation at the catalytic site [pY418].

Western blot detection of Src phosphorylation in extracts of chick embryo fibroblasts expressing wild-type (lanes 2,4,6) or mutant (lanes 1,3,5) pp60src. Truncation of Src at position 518 eliminated phosphorylation at the negative regulatory site [pY529], while increasing phosphorylation at the catalytic site [pY418].

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