

Bi-Phospho-YES1(Y537)/Phospho-SRC(Y530) Antibody
Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3254a-400 □

Specification

Bi-Phospho-YES1(Y537)/Phospho-SRC(Y530) Antibody - Product info

Application	DB, IHC-P
Primary Accession	P12931
Other Accession	P05480 , Q1JPZ3 , P00523
Reactivity	Human
Predicted	Mouse, Zebrafish, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig

Bi-Phospho-YES1(Y537)/Phospho-SRC(Y530) Antibody - Additional info

Gene ID 6714

Other Names

Proto-oncogene tyrosine-protein kinase Src, Proto-oncogene c-Src, pp60c-src, p60-Src, SRC, SRC1

Target/Specificity

This SRC Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding Y530 of human SRC.

Dilution

DB~~1:500
IHC-P~~1:50~100

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Bi-Phospho-YES1(Y537)/Phospho-SRC(Y530) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

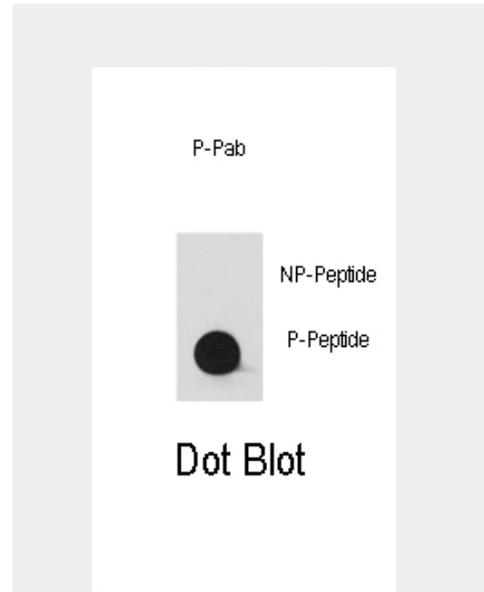
Bi-Phospho-YES1(Y537)/Phospho-SRC(Y530) Antibody - Protein Information

Name SRC

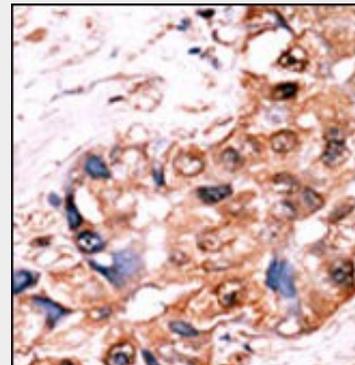
Synonyms SRC1

Function

Non-receptor protein tyrosine kinase which is activated following engagement of many different classes of cellular



Dot blot analysis of anti-Phospho-YES1-Y537/Phospho-SRC-Y530 Antibody (Cat.#AP3254a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma

receptors including immune response receptors, integrins and other adhesion receptors, receptor protein tyrosine kinases, G protein-coupled receptors as well as cytokine receptors. Participates in signaling pathways that control a diverse spectrum of biological activities including gene transcription, immune response, cell adhesion, cell cycle progression, apoptosis, migration, and transformation. Due to functional redundancy between members of the SRC kinase family, identification of the specific role of each SRC kinase is very difficult. SRC appears to be one of the primary kinases activated following engagement of receptors and plays a role in the activation of other protein tyrosine kinase (PTK) families. Receptor clustering or dimerization leads to recruitment of SRC to the receptor complexes where it phosphorylates the tyrosine residues within the receptor cytoplasmic domains. Plays an important role in the regulation of cytoskeletal organization through phosphorylation of specific substrates such as AFAP1. Phosphorylation of AFAP1 allows the SRC SH2 domain to bind AFAP1 and to localize to actin filaments. Cytoskeletal reorganization is also controlled through the phosphorylation of cortactin (CTTN) (Probable). When cells adhere via focal adhesions to the extracellular matrix, signals are transmitted by integrins into the cell resulting in tyrosine phosphorylation of a number of focal adhesion proteins, including PTK2/FAK1 and paxillin (PXN) (PubMed:21411625). In addition to phosphorylating focal adhesion proteins, SRC is also active at the sites of cell-cell contact adherens junctions and phosphorylates substrates such as beta-catenin (CTNNB1), delta-catenin (CTNND1), and plakoglobin (JUP). Another type of cell-cell junction, the gap junction, is also a target for SRC, which phosphorylates connexin-43 (GJA1). SRC is implicated in regulation of pre-mRNA-processing and phosphorylates RNA-binding proteins such as KHDRBS1 (Probable). Also plays a role in PDGF-mediated tyrosine phosphorylation of both STAT1 and STAT3, leading to increased DNA binding activity of these transcription factors (By similarity). Involved in the RAS pathway through phosphorylation of RASA1 and RASGRF1 (PubMed:11389730). Plays a role in EGF-mediated calcium-activated chloride channel activation (PubMed:18586953). Required for epidermal growth factor receptor (EGFR) internalization through phosphorylation of clathrin heavy chain (CLTC and CLTCL1) at 'Tyr-1477'. Involved in beta-arrestin (ARRB1 and ARRB2) desensitization through phosphorylation and activation of GRK2, leading to beta-arrestin phosphorylation and internalization. Has a critical role in the stimulation of the CDK2/MAPK3 mitogen-activated protein kinase cascade by epidermal growth factor (Probable). Might be involved not only in mediating the transduction of mitogenic signals at the level of the plasma membrane but also in controlling progression through the cell cycle via interaction with regulatory proteins in the nucleus (PubMed:7853507). Plays an important role in osteoclastic bone resorption in conjunction with PTK2B/PYK2. Both the formation of a SRC-PTK2B/PYK2 complex and SRC kinase activity are necessary for this function. Recruited to activated integrins by PTK2B/PYK2, thereby phosphorylating 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 (PubMed:8755529, PubMed:14585963). Promotes energy production in osteoclasts by activating mitochondrial cytochrome C oxidase (PubMed:12615910). Phosphorylates DDR2 on tyrosine residues, thereby promoting its subsequent autophosphorylation (PubMed:16186108). Phosphorylates RUNX3 and COX2 on tyrosine residues, TNK2 on 'Tyr-284' and CBL on 'Tyr-731' (PubMed:20100835, PubMed:21309750). Enhances DDX58/RIG-I-elicited antiviral signaling (PubMed:19419966). Phosphorylates PDPK1 at 'Tyr-9', 'Tyr-373' and 'Tyr-376' (PubMed:14585963). Phosphorylates BCAR1 at 'Tyr-128' (PubMed:22710723). Phosphorylates CBLC at multiple tyrosine residues, phosphorylation at 'Tyr-341' activates CBLC E3 activity (PubMed:20525694). Involved in anchorage-independent cell growth (PubMed:19307596). Required for podosome formation (By similarity).

Cellular Location

Cell membrane. Mitochondrion inner membrane Nucleus. Cytoplasm, cytoskeleton. Cytoplasm, perinuclear region. Note=Localizes to focal adhesion sites following integrin engagement. Localization to focal adhesion sites requires myristoylation and the SH3 domain (PubMed:7525268). Colocalizes with PDLIM4 at the perinuclear region, but not at focal adhesions (PubMed:19307596)

Tissue Location

Expressed ubiquitously. Platelets, neurons and osteoclasts express 5-fold to 200-fold higher levels than most other tissues

Bi-Phospho-YES1(Y537)/Phospho-SRC(Y530) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [□ Western Blot](#)
- [□ Blocking Peptides](#)
- [□ Dot Blot](#)
- [□ Immunohistochemistry](#)
- [□ Immunofluorescence](#)
- [□ Immunoprecipitation](#)
- [□ Flow Cytometry](#)
- [□ Cell Culture](#)

Bi-Phospho-YES1(Y537)/Phospho-SRC(Y530) Antibody - Background

This protein has tyrosine kinase activity and belongs to the src family of proteins. The YES1 gene is the cellular homolog of the Yamaguchi sarcoma virus oncogene.

Bi-Phospho-YES1(Y537)/Phospho-SRC(Y530) Antibody - References

Anneren, C., et al., J. Biol. Chem. 279(30):31590-31598 (2004).

Reinehr, R., et al., J. Biol. Chem. 279(23):23977-23987 (2004).
Leclerc, P., et al., Biol. Reprod. 67(1):301-307 (2002). Oh, H.S., et al.,
J. Biol. Chem. 277(39):36489-36498 (2002). Silverman, G.A., et al.,
Genomics 15(2):442-445 (1993).

Bi-Phospho-YES1(Y537)/Phospho-SRC(Y530) Antibody - Citations

- [Targeting the LOX/hypoxia axis reverses many of the features that make pancreatic cancer deadly: inhibition of LOX abrogates metastasis and enhances drug efficacy.](#)
- [Phosphorylation of collapsin response mediator protein 2 on Tyr-479 regulates CXCL12-induced T lymphocyte migration.](#)