SRC Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

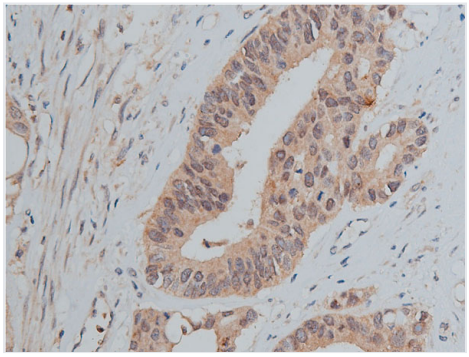
Product Name	Src, Polyclonal Antibody
Full Product Name	Phospho-Src (Tyr530) Antibody
Product Gene Name	anti-Src antibody
Product Synonym Names	ASV; Avian sarcoma virus; c SRC; CDNA FLJ14219 fis clone NT2RP3003800 highly similar to Rattus norvegicus tyrosine protein kinase pp60 c src mRNA; cSrc; EC 2.7.10.2; Neuronal CSRC tyrosine specific protein kinase; Neuronal SRC; Oncogene SRC; OTTHUMP00000174476; OTTHUMP00000174477; p60 Src; p60-Src; p60Src; pp60c src; pp60c-src; pp60csrc; Proto oncogene tyrosine protein kinase Src; Proto-oncogene c-Src; Proto-oncogene tyrosine-protein kinase Src; Protooncogene SRC; Protooncogene SRC Rous sarcoma; Src; SRC Oncogene; SRC proto oncogene non receptor tyrosine kinase; SRC_HUMAN; SRC1; Tyrosine kinase pp60c src; Tyrosine protein kinase SRC 1; Tyrosine protein kinase SRC1; v src avian sarcoma (Schmidt Ruppin A2) viral oncogene homolog; V src sarcoma (Schmidt Ruppin A 2) viral oncogene homolog (avian); v src sarcoma (Schmidt Ruppin A 2) viral oncogene homolog avian
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Concentration	1mg/ml (lot specific)
Specificity	Phospho-Src (Tyr530) antibody detects endogenous levels of Src only when phosphorylated at Tyrosine 530
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.
Antibody/Peptide Pairs	Src (Tyr530)[Tyr529] peptide (MBS9615516) is used for blocking the activity of Src (Tyr530)[Tyr529] antibody (MBS9600933)
Molecular Weight	Observed: 60 kDa Predicted: 60 kDa
3D Structure	ModBase 3D Structure for P12931
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Immunogen	A synthesized peptide derived from human Src around the phosphorylation site of Tyrosine 530
Subcellular Location	Cell Membrane. Mitochondrion Inner Membrane.
Tissue Specificity	Expressed ubiquitously. Platelets, neurons and osteoclasts express 5-fold to 200-fold higher levels than most other tissues.
Predicted Cross Reactivity	**Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Chicken, Xenopus**
Similarity	Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Chicken (100%), Xenopus (82%)
Conjugation	Unconjugated

Epitope	Phospho Tyr530
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-Src antibody	Western Blot (WB), Immunohistochemisty (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC), ELISA (EIA)
Application Notes for anti-Src antibody	WB: 1:500-1:2000 IHC: 1:50-1:200 IF/ICC: 1:100-1:500

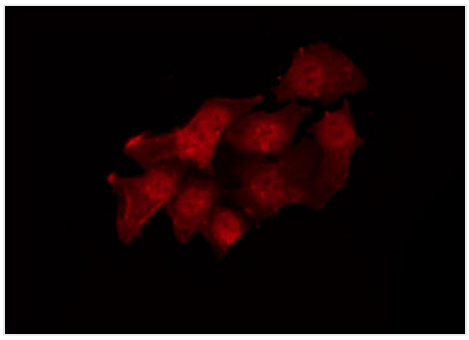
Related Product Information for anti-Src antibody

Description: This gene is highly similar to the v-src gene of Rous sarcoma virus. This proto-oncogene may play a role in the regulation of embryonic development and cell growth. The protein encoded by this gene is a tyrosine-protein kinase whose activity can be inhibited by phosphorylation by c-SRC kinase.
Function: Non-receptor protein tyrosine kinase which is activated following engagement of many different classes of cellular 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 CDK20/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).
Subunit Structure: Interacts with DDEF1/ASAP1; via the SH3 domain (By similarity). Interacts with CCPG1 (By similarity). Identified in a complex containing FGFR4, NCAM1, CDH2, PLCG1, FRS2, SRC, SHC1, GAP43 and CTTN (By similarity). Interacts with ERBB2, STAT1 and PNN (By similarity). Interacts with DDR1, DDR2 and DAB2 (By similarity). Interacts with CDCP1, PELP1, TGFB1I1 and TOM1L2 (PubMed:12415108, PubMed:15851033, PubMed:16479011, PubMed:17202804). Interacts with the cytoplasmic domain of MUC1, phosphorylates it and increases binding of MUC1 with beta-catenin (PubMed:11152665). Interacts with RALGPS1; via the SH3 domain (PubMed:10747847). Interacts with CAV2 (tyrosine phosphorylated form) (PubMed:12091389, PubMed:15504032). Interacts (via the SH3 domain and the protein kinase domain) with ARRB1; the interaction is independent of the phosphorylation state of SRC C-terminus (By similarity). Interacts with ARRB1 and ARRB2 (PubMed:10753943, PubMed:9924018). Interacts with SRCIN1 (PubMed:17525734). Interacts with NDFIP2 and more weakly with NDFIP1 (PubMed:20534535). Interacts with PIK3CA and/or PIK3C2B, PTK2/FAK1 and ESR1 (dimethylated on arginine) (PubMed:18657504, PubMed:21411625). Interacts with FASLG (PubMed:19807924). Interacts (via SH2 domain) with the 'Tyr-402' phosphorylated form of PTK2B/PYK2 (PubMed:14585963). Interacts (via SH2 domain) with FLT3 (tyrosine phosphorylated) (By similarity). Interacts with PDGFRA (tyrosine phosphorylated) (By similarity). Interacts with CSF1R (By similarity). Interacts (via SH2 and SH3 domain) with TNK2 (PubMed:21309750). Interacts (via protein kinase domain) with the tyrosine phosphorylated form of RUNX3 (via runt domain) (PubMed:20100835). Interacts with TRAF3 (via RING-type zinc finger domain) (PubMed:19419966). Interacts with DDX58, MAVS and TBK1 (PubMed:19419966). Interacts (via SH2 domain) with RACK1; the interaction is enhanced by tyrosine phosphorylation of RACK1 and inhibits SRC activity (PubMed:9584165, PubMed:11279199). Interacts with EPHB1; activates the MAPK/ERK cascade to regulate cell migration (PubMed:12925710). Interacts with FCAMR (PubMed:8759729). Interacts (via SH2 domain) with the 'Tyr-9' phosphorylated form of PDPK1 (PubMed:18024423). Interacts with AMOTL2; this interaction regulates the translocation of phosphorylated SRC to peripheral cell-matrix adhesion sites (PubMed:17293535). Interacts with TRAP1 (PubMed:23564345). Interacts with CBLC; the interaction is enhanced when SRC is phosphorylated at Tyr-419 (PubMed:14661060, PubMed:22888118). Interacts with ARHGEF5 (By similarity). Interacts (via cytoplasmic domain) with CEACAM1 (via

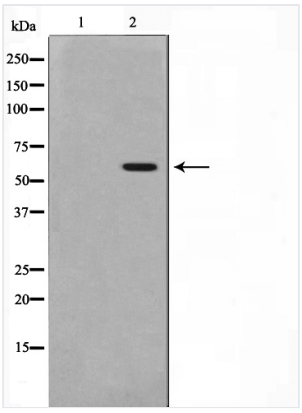
Other Notes	Small volumes of anti-Src antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for Src purchase	MBS9600933 is an antibody targeting Src. Also known as Phospho-Src (Tyr530) Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



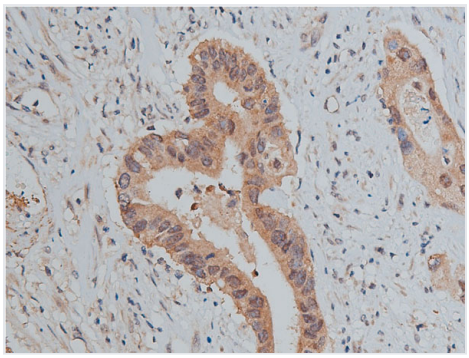
Immunohistochemistry (IHC) of anti-Src antibody
MBS9600933 at 1/50 staining human colon carcinoma tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



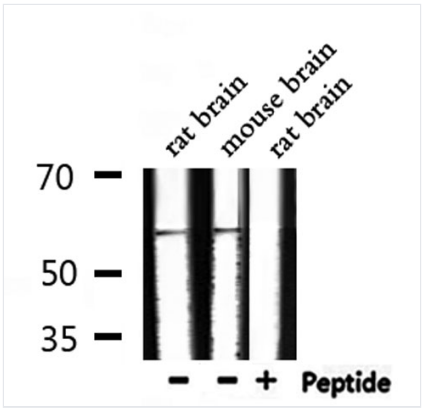
Immunofluorescene (IF) of anti-Src antibody
MBS9600933 staining 293 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



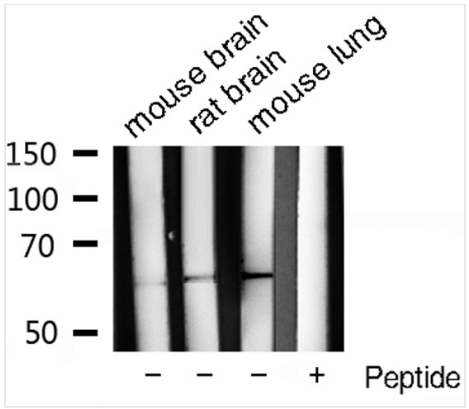
Western Blot (WB) of anti-Src antibody
Western blot analysis of Src phosphorylation expression in EGF treated 293 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



Immunohistochemistry (IHC) of anti-Src antibody
MBS9600933 at 1/50 staining human colon carcinoma tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



Western Blot (WB) of anti-Src antibody
Western blot analysis of extracts from rat brain, mouse brain, using Phospho-Src (Tyr530) Antibody.



Western Blot (WB) of anti-Src antibody
Western blot analysis of extracts of various celllines, using Phospho-Src (Tyr529) Antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Src. It may not necessarily be applicable to this product.

NCBI GI #	4885609
NCBI GeneID	6714
NCBI Accession #	NP_005408.1
UniProt Primary Accession #	P12931
UniProt Secondary Accession #	Q76P87; Q86VB9; Q9H5A8; E1P5V4
UniProt Related Accession #	P12931
GenBank Nucleotide #	NM_005417.4
NCBI Official Full Name	proto-oncogene tyrosine-protein kinase Src
NCBI Official Synonym Full Names	SRC proto-oncogene, non-receptor tyrosine kinase
NCBI Official Symbol	SRC
NCBI Official Synonym Symbols	ASV; SRC1; THC6; c-SRC; p60-Src
UniProt Protein Name	Proto-oncogene tyrosine-protein kinase Src
UniProt Synonym Protein Names	Proto-oncogene c-Src; pp60c-src; p60-Src
Protein Family	Neuronal proto-oncogene tyrosine-protein kinase
UniProt Gene Name	SRC
UniProt Synonym Gene Names	SRC1; p60-Src
NCBI Protein Information	proto-oncogene tyrosine-protein kinase Src
NCBI Summary for Src	This gene is highly similar to the v-src gene of Rous sarcoma virus. This proto-oncogene may play a role in the regulation of embryonic development and cell growth. The protein encoded by this gene is a tyrosine-protein kinase whose activity can be inhibited by phosphorylation by c-SRC kinase. Mutations in this gene could be involved in the malignant progression of colon cancer. Two transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]

UniProt Comments for Src	Non-receptor protein tyrosine kinase which is activated following engagement of many different classes of cellular 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 (). 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 CDK20/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 ().
Research Articles on Src	**1.** Src kinase activation by nitric oxide promotes resistance to anoikis in tumor cell lines.
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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