

Recombinant Human SRC Protein (G2-L536), His/Flag tagged

Cat. No. SRC-0403H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human 6His-Flag-SRC(G2-L536 end) Protein was expressed in Insect cell.
Species	Human
Source	Insect Cells
ProteinLength	G2-L536
Description	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. 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

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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. Plays a role in EGF-mediated calcium-activated chloride channel activation. 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. 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 (). Promotes energy production in osteoclasts by activating mitochondrial cytochrome C oxidase. Involved in anchorage-independent cell growth. Required for podosome formation. Mediates IL6 signaling by activating YAP1-NOTCH pathway to induce inflammation-induced epithelial regeneration.

Form	Liquid
Endotoxin	< 0.01 EU per µg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.

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Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	SRC v-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian) [Homo sapiens (human)]
Official Symbol	SRC
Synonyms	SRC; v-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian); SRC1, v src avian sarcoma (Schmidt Ruppinn A 2) viral oncogene homolog; proto-oncogene tyrosine-protein kinase Src; ASV; c src; proto-oncogene c-Src; tyrosine kinase pp60c-src; tyrosine-protein kinase SRC-1; protooncogene SRC, Rous sarcoma; SRC1; c-SRC; p60-Src;
Gene ID	6714
mRNA Refseq	NM_005417
Protein Refseq	NP_005408
MIM	190090
UniProt ID	P12931

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