

Recombinant human Src protein ab79635

[1 References](#) [2 Images](#)

Description

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| Product name | Recombinant human Src protein |
| Biological activity | Activity: 1007 pmol/min/μg. Assay conditions: 40 mM Tris-HCl pH 7.4, 20 mM MgCl ₂ , 0.1 mg/mL BSA and 1 mM DTT using 0.2 mg/ml Poly(Glu:Tyr) substrate and 20 μM ATP. Reaction was done at 30°C for 35 min. |
| Purity | > 85 % SDS-PAGE. Affinity purified. |
| Expression system | Baculovirus infected Sf9 cells |
| Accession | <u>P12931</u> |
| Protein length | Full length protein |
| Animal free | No |
| Nature | Recombinant |
| Species | Human |
| Sequence | MHHHHHGHGSNKS KPKDASQRRRSLEPAENVHGAGGGAF PASQTSPKPASA DGHRGPSAAFAPAAAEPKLFGGFNSSDTVSPQRAGPL AGGVTTFVALYD YESRTETDLSFKKGERLQIVNTEGDWWLAHSLSTGQTGY IPSNYVAPSD SIQAEWYFGKITRRESERLLLNAENPRGTFLVRESETTKG AYCLSVSDF DNAKGLNVKHYKIRKLDSSGGFYTSRTQFNSLQQLVAYYSK HADGLCHRL TTVCPTSKPQTQGLAKDAWEIPRESLRLEVKLGQGCDFGE VWMGTWNGTTR VAIKTLKPGTMSPEAFLQEAQVMKKLRHEKLVQLYAVVSE EPMVTEYM SKGSLLDFLKGETGKYLRPQLVDMAAQIASGMAYVERM NYVHRDLRAAN ILVGENLVCKVADFGLARLIEDNEYARQGAKFPIKWTAPE AALYGRFTI KSDVWSFGILLTELTTKGRVPYPGMVNREVLQDQVERGYR MPCPPECPESEL HDLMCQCWRKEPEERPTFEYLQAFLEDYFTSTEPQYQPG ENL |

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| Predicted molecular weight | 61 kDa including tags |
| Amino acids | 2 to 536 |
| Tags | His tag N-Terminus |
| Additional sequence information | NM_005417 61 KDa including tag |

Specifications

Our **Abpromise guarantee** covers the use of **ab79635** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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| Applications | Functional Studies SDS-PAGE Western blot |
| Form | Liquid |

Preparation and Storage

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| Stability and Storage | Shipped on Dry Ice. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle. pH: 8.00 Preservative: 0.851% Imidazole Constituents: 0.04627% (R*,R*)-1,4-Dimercaptobutan-2,3-diol, 0.394% Tris HCl, 50% Glycerol (glycerin, glycerine), 0.403% Sodium chloride, 0.01006% Potassium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution. |
|------------------------------|--|

General Info

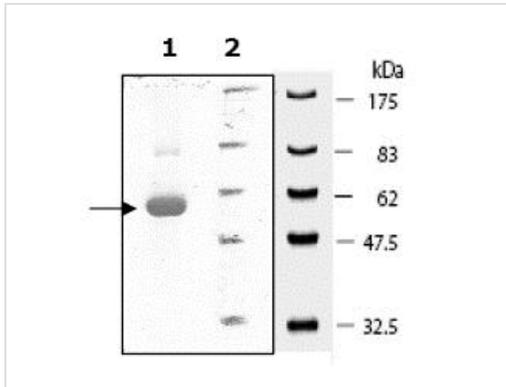
| | |
|---|--|
| Function | Non-receptor protein tyrosine kinase that plays pivotal roles in numerous cellular processes such as proliferation, migration, and transformation. In concert with PTK2B, plays an important role in osteoclastic bone resorption. Both the formation of a SRC-PTK2B complex, and 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-I-elicited antiviral signaling. |
| Sequence similarities | 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. |
| Post-translational modifications | 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.

Cellular localization

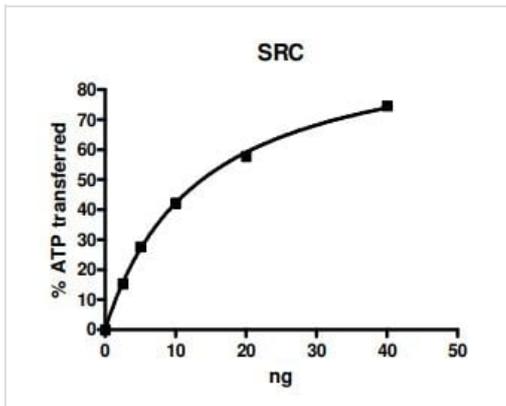
Cell membrane. Mitochondrion inner membrane.

Images



ab79635 on SDS-PAGE, Molecular Weight 60.5 kDa
10% SDS-PAGE, Coomassie staining
Lane 1: ab79635 6 μ g
Lane 2: Protein marker

SDS-PAGE - Recombinant human Src protein
(ab79635)



Kinase assay - Specific activity 1007 pmol/min/ μ g

Functional Studies - Recombinant human Src
protein (ab79635)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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