

Product datasheet

Recombinant human Src protein ab79635

1 References 2 Images

Description

Product name	Recombinant human Src protein
Biological activity	Activity: 1007 pmol/min/μg. Assay conditons: 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 uM ATP. Reaction was done at 30°C for 35 min.
Purity	> 85 % SDS-PAGE. Affinity purified.
Expression system	Baculovirus infected Sf9 cells
Accession	P12931
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human

Sequence

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MHHHHHHGSNKS KPKDASQRRRSLEPAENVHGAGGGAF
PASQTSPKPASA
DGHrgPSAAfAPAAAEPKLFGGFNSSDVTSPQRAGPL
AGGVTTfVALYD
YESRTETDLSfFKKGERLQIVNTEGDWWLAHSLSTGQTGY
IPSNYVAPSD
SIQAEWYfGKITRRESERLLLNAENPRGTFLVRESEttKG
AYCLSVSDF
DNAKGLNVKHYKIRKLDsGGfYTSRTQFNsLQQLVAyYSK
HADGLCHRL
TTVCPTSKPQTQGLAKDAWEIPRESLRLEVKLGQGCfGE
VWMGTWNGTTR
VAIKTLKPGTMSPEAFLEAQVMKKLRHEKLVQLYAVVSE
EPIYVTEYM
SKGSLLDFLKGETGKYLRPQLVDMAAQIASGMAYVERM
NYVHRDLRAAN
ILVGENLVCKVADfGLARLIEDNEYtarQGAKfPIKWTape
AALYGRFTI
KSDVWSFGILLTELtTKGRVPYpGMVNREVLdQVERGYR
MPCPPECPEsL
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.

Applications	Functional Studies SDS-PAGE Western blot
Form	Liquid

Preparation and Storage

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.
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General Info

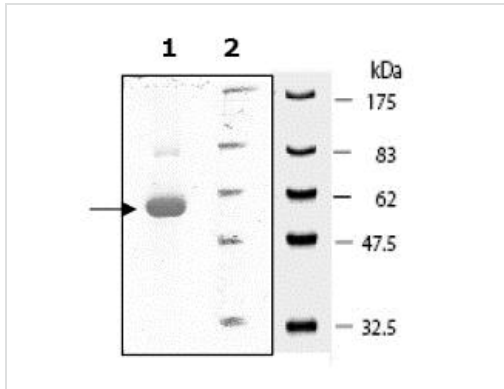
Function	Non-receptor protein tyrosine kinase that plays pivotal roles in numerous cellular processes such as proliferation, migration, and transformation. In concert with PTK2B, plays an important role in osteoclastic bone resorption. Both the formation of a SRC-PTK2B complex, and SRC kinase activity 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.

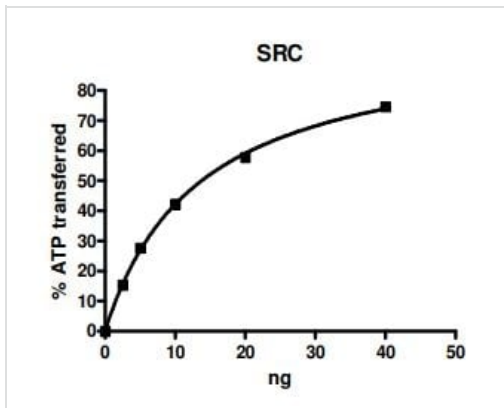
Cellular localization

Cell membrane. Mitochondrion inner membrane.

Images



SDS-PAGE - Recombinant human Src protein
(ab79635)



Functional Studies - Recombinant human Src
protein (ab79635)

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