

PRODUCT INFORMATION



Src (human, recombinant)

Item No. 32565

Overview and Properties

Synonyms: Proto-oncogene Tyrosine-protein Kinase Src, Proto-oncogene c-Src, c-SRC, p60-Src, pp660c-src
Source: Active recombinant human N-terminal GST-tagged Src expressed in insect cells
Amino Acids: 1-536 (full length)
Uniprot No.: P12931
Molecular Weight: 86 kDa
Storage: -80°C (as supplied)
Stability: ≥6 months
Purity: *batch specific* (≥60% estimated by SDS-PAGE)
Supplied in: 25 mM Tris-HCl, pH 8.0, with 69 mM sodium chloride, 1.35 mM potassium chloride, 0.025% Tween-20, 125 mM imidazole, 50% glycerol, and 3 mM DTT

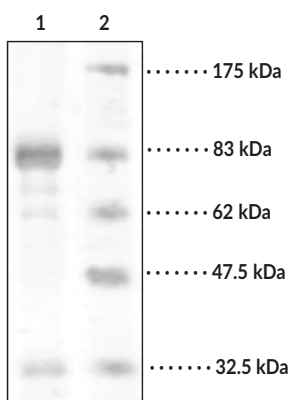
Protein

Concentration: *batch specific* mg/ml
Specific Activity: *batch specific* U/mg
Activity: Tris buffered solution containing MgCl₂, 10 μM ATP, 10 μg Poly-Glu,Tyr 4:1 substrate and 30 ng of Src. Incubate at 30°C for 45 min, and measure ATP *via* luminescent assay. Luminescence is inversely correlated to kinase activity.

Assay conditions: 50 mM HEPES, pH 7.5, with 10 mM MgCl₂, 1 mM EGTA, 0.01% Brij-35, 200 μM ATP, and 2 μM Tyr2 substrate (Z-lyte Kinase Assay Kit from Invitrogen), 1 hour at room temperature

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

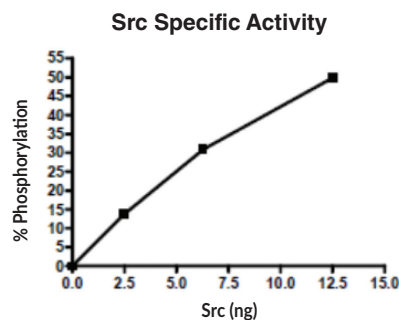
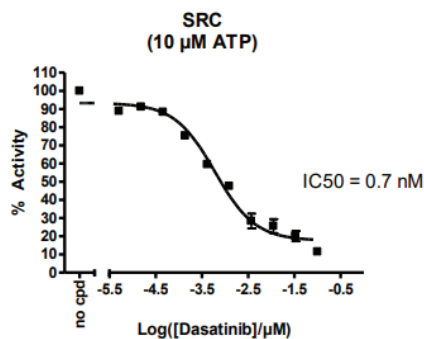
Images



Lane 1: Src (6 μg)
Lane 2: MW Markers

SDS-PAGE Analysis of Src.

Representative gel image shown; actual purity may vary between each batch.



WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Src is a non-receptor protein tyrosine kinase, and SRC, which encodes Src, is considered a protooncogene.¹ Src is composed of unique, SH3, SH2, linker, and SH1 protein tyrosine kinase domains, and a C-terminal regulatory tail. It is ubiquitously expressed with higher levels in the brain, osteoclasts, and platelets. Src is myristoylated at the N-terminus during biosynthesis, a modification which facilitates its attachment to membranes. It primarily localizes to the plasma membrane where it interacts with receptor tyrosine kinases involved in cell division, growth, migration, and survival, as well as to the perinuclear membranes, endosomes, and secretory vesicles. It exists in an autoinhibited state and is activated by receptor tyrosine kinases, such as PDGFR, autophosphorylation at tyrosine 419, dephosphorylation of negative regulatory residues, or certain mutations.^{1,2} Src protein levels and activity are elevated in a variety of cancers and are positively correlated with the degree of malignancy.² An activating truncation mutation in SRC is associated with highly metastatic forms of colon carcinoma.² Cayman's Src (human, recombinant) protein can be used for enzyme assay applications. This protein consists of 536 amino acids and has a calculated molecular weight of 86 kDa.

References

1. Roskoski, R., Jr. Src protein-tyrosine kinase structure, mechanism, and small molecule inhibitors. *Pharmacol. Res.* **94**, 9-25 (2015).
2. Bjorge, J.D., Jakymiw, A., and Fujita, D.J. Selected glimpses into the activation and function of Src kinase. *Oncogene* **19(49)**, 5620-5635 (2000).

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