

### Produktinformation



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#### SZABO-SCANDIC HandelsgmbH

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## **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:            | <i>batch specific</i> (≥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:     | <i>batch specific</i> mg/ml   |
| Specific Activity: | batch specific U/mg   |
| Activity:          | Tris buffered solution containing MgCl <sub>2</sub> , 10 $\mu$ M ATP, 10 $\mu$ g Poly-Glu,Tyr 4:1 substrate and 30 ng of Src. Incubate at 30°C for 45 min, and measure ATP <i>via</i> luminescent assay. Luminescence is inversely correlated to kinase activity. |
| Assay conditions:  | 50 mM HEPES, pH 7.5, with 10 mM MgCl <sub>2</sub> , 1 mM EGTA, 0.01% Brij-35, 200 $\mu$ M ATP, and 2 $\mu$ M 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



#### CAYMAN CHEMICAL

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# **PRODUCT** INFORMATION



#### Description

Src is a non-receptor protein tyrosine kinase, and *SRC*, which encodes Src, is considered a protooncogene.<sup>1</sup> 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.<sup>1,2</sup> Src protein levels and activity are elevated in a variety of cancers and are positively correlated with the degree of malignancy.<sup>2</sup> An activating truncation mutation in *SRC* is associated with highly metastatic forms of colon carcinoma.<sup>2</sup> 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).
- 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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