

## Product datasheet for **SC323642**

### SRC (NM\_005417) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SRC (NM_005417) Human Untagged Clone
Tag:	Tag Free
Symbol:	SRC
Synonyms:	ASV; c-SRC; p60-Src; SRC1; THC6
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_005417, the custom clone sequence may differ by one or more nucleotides

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ATGGGTAGCAACAAGAGCAAGCCCAAGGATGCCAGCCAGCGGCGCCGAGCCTGGAGCCCGCCGAGAACG
TGCACGGCGCTGGCGGGGGCGCTTCCCGCCTCGCAGACCCCAAGCCAGCCTCGGCCGACGGCCA
CCGCGGCCAGCGGGCGCTTCGCCCCCGCGGCCGAGCCCAAGCTGTTTCGGAGGCTTCAACTCCTCG
GACACCGTCACCTCCCGCAGAGGGCGGCCCGCTGGCCGGTGGAGTGACCACCTTTGTGGCCCTATG
ACTATGAGTCTAGGACGGAGACAGACCTGTCTTCAAGAAAGGCGAGCGCTCCAGATTGTCAACAACAC
AGAGGGAGACTGGTGGCTGGCCACTCGCTCAGCACAGGACAGACAGGCTACATCCCAGCAACTACGTG
GCGCCCTCCGACTCCATCCAGGCTGAGGAGTGGTATTTTGGCAAGATCACCAGACGGGAGTCAGAGCGGT
TACTGCTCAATGCAGAGAACCCGAGAGGGACCTTCTCGTGCAGAAAAGTGAGACCAGAAAAGGTGCCTA
CTGCCTCAGTGTCTGACTTCGACAACGCCAAGGGCCTCAACGTGAAGCACTACAAGATCCGCAAGCTG
GACAGCGGCGGCTTCTACATCACCTCCCGCACCCAGTTCAACAGCCTGCAGCAGCTGGTGGCCTACTACT
CCAAACACGCCGATGGCCTGTGCCACCGCCTCACCACCGTGTGCCCCACGTCCAAGCCGACAGCTCAGGG
CCTGGCCAAGGATGCCTGGGAGATCCCTCGGGAGTCGCTGCGGCTGGAGGTCAAGCTGGGCCAGGGCTGC
TTTGGCGAGGTGTGGATGGGGACCTGGAACGGTACCACCAGGGTGGCCATCAAAACCTGAAGCCTGGCA
CGATGTCTCCAGAGGCCCTTCTGCAAGGAGGCCAGGTCATGAAGAAGCTGAGGCATGAGAAGCTGGTGCA
GTTGATGCTGTGGTTTCAGAGGAGCCATTTACATCGTCACGGAGTACATGAGCAAGGGGAGTTTGTCTG
GACTTTCTCAAGGGGGAGACAGGCAAGTACCTGCGGCTGCCTCAGCTGGTGGACATGGCTGCTCAGATCG
CCTCAGGCATGGCGTACGTGGAGCGGATGAACTACGTCCACCGGGACCTTCGTGCAGCAACATCCTGGT
GGGAGAGAACCTGGTGTGCAAAGTGGCCGACTTTGGGCTGGCTCGGCTCATTGAAGACAATGAGTACACG
GCGGGAAGGTGCCAAATTCCCATCAAGTGGACGGCTCCAGAAGCTGCCCTCTATGGCCGCTTACCACA
TCAAGTCGGACGTGTGGTCTTCGGGATCCTGCTGACTGAGCTACCACAAAGGGAGCGGGTGCCTACCC
TGGGATGGTGAACCGCGAGGTGCTGGACCAGGTGGAGCGGGGCTACCGGATGCCCTGCCCGCCGAGTGT
CCCGAGTCCCTGCACGACCTCATGTGCCAGTGTGGCGGAAGGAGCCTGAGGAGCGGCCACCTTCGAGT
ACCTGCAGGCCTTCTGGAGGACTACTTCACGTCCACCGAGCCCCAGTACCAGCCGGGGAGAACCTCTA
G
    
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**5' Read Nucleotide Sequence:** >OriGene 5' read for mutant NM\_005417 unedited

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CCCCCGTTGAGCAATGGGCGGTAGGCGTGTACGGAGAGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA
ACCGTCAGAAATTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCATCGAGGTTTTG
AGAGGCTAACTCTCCAAAAAGGACCATGGGTAGCAACAAGAGCAAGCCCAAGGATGCCAGCCAGCGGGC
CCGACGCTGGAGCCCGCGAGAACGTGCACGGCGCTGGCGGGGGCGCTTCCCGCCTCGCAGACCCCC
AGCAAGCCAGCCTCGGCCGACGGCCACCGCGGCCAGCGCGGCTTCGCCCCCGCGGCCGAGCCCA
AGCTGTTTCGGAGGCTTCAACTCCTCGGACACCGTCACCTCCCGCAGAGGGCGGGGCCGCTTCCCGG
TGGGAGTGACCCACCTTTGTGGCCCTCATGACTATGAGTCTAGGACGGAACAGACCTGTCTTCAGA
AAGCCGAGCGGGCTCAGAATTGTCAACAACACGAAGGGAAGACGGGGGGCTGCCCACTTCGCTCAGACA
AGGACAGACGGGCTAATTCAGCAACTTCTTCCCGCCCTCCGACTTCCATCAAGGCTTAAGAATGGTT
ATTTGGCCAGATTCGGAACGGAATTCAAACCGGGTAATGGCTCTGGCAGAAAACCGGAAGGGGACCTT
CTTTGCGCGAGAAATGTGACACCGAAGGGCCACTGGCCCTCAATGTCTACTGCGACGCGCAAGGCC
CAACTGAAGACATACGATTCGAGACGGGAACGGGGCGGTCTACATCTCATCTCCACCAGTTAAGCCGTG
CAGGTGTGGCCATCCTCACACCGATGCCTGACAGGTACAAGTCCAGTCCAGCAATTAGACGAGAGTC
GGGAATCTACGATCTGCGGTA
    
```

**Kinase Domain Sequence:** >SC323642 kinase domain raw sequence. By performing [BLASTX](#) analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation

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ACKCAGTCAGCTGGGCGGCTGCTTTGGCAGGTGTGGATGGGGACCTGGAACGGTACCACCAGGGTGGC
CATCATGACCCTGAAGCCTGGCACGATGTCTCCAGAGGCCTTCTGCAGGAGGCCAGGTCATGAAGAAG
CTGAGGCATGAGAAGCTGGTGCAGTTGTATGCTGTGGTTTCAGAGGAGCCATTTACATCGTCACGGAGT
ACATGAGCAAGGGGAGTTTGTGGACTTCTCAAGGGGGAGACAG
    
```

<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_005417
<b>Insert Size:</b>	4600 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." <a href="#">Cell. 2008 May p536-548.</a>
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_005417.3</a> , <a href="#">NP_005408.1</a>
<b>RefSeq Size:</b>	4145 bp
<b>RefSeq ORF:</b>	1611 bp
<b>Locus ID:</b>	6714
<b>UniProt ID:</b>	<a href="#">P12931</a>
<b>Cytogenetics:</b>	20q11.23
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase, Stem cell relevant signaling - JAK/STAT signaling pathway
<b>Protein Pathways:</b>	Adherens junction, Endocytosis, Epithelial cell signaling in Helicobacter pylori infection, ErbB signaling pathway, Focal adhesion, Gap junction, GnRH signaling pathway, Tight junction, VEGF signaling pathway

**Gene Summary:**

This gene is highly similar to the v-src gene of Rous sarcoma virus. This proto-oncogene may play a role in the regulation of embryonic development and cell growth. The protein encoded by this gene is a tyrosine-protein kinase whose activity can be inhibited by phosphorylation by c-SRC kinase. Mutations in this gene could be involved in the malignant progression of colon cancer. Two transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (1) represents the longer transcript. Variants 1 and 2 both encode the same protein.