

Product datasheet for **RC201214**

SSX2 (NM_003147) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: SSX2 (NM_003147) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: SSX2
Synonyms: CT5.2; CT5.2A; HD21; HOM-MEL-40; SSX
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC201214 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAACGGAGACGACGCCTTTGCAAGGAGACCCACGGTTGGTGCTCAAATACCAGAGAAGATCCAAAAGG
CCTTCGATGATATTGCCAAATACTTCTCTAAGGAAGAGTGGGAAAAGATGAAAGCCTCGGAGAAAATCTT
CTATGTGTATATGAAGAGAAAGTATGAGGCTATGACTAACTAGGTTTCAAGGCCACCTCCACCTTTT
ATGTGTAATAAACGGGCCGAAGACTTCCAGGGGAATGATTTGGATAATGACCCTAACCGTGGGAATCAGG
TTGAACGTCCTCAGATGACTTTTCGGCAGGCTCCAGGGAATCTCCCGAAGATCATGCCAAGAAGCCAGC
AGAGGAAGGAAATGATTCGGAGGAAGTCCAGAAAGCATCTGGCCACAAAATGATGGGAAAGAGCTGTGC
CCCCCGGAAAACCAACTACCTCTGAGAAGATTACGAGAGATCTGGAATAGGGAGGCCAAGAAAAGG
AAGAGAGACGCGAACAGCTCATCGGTGGAGCAGTCAGAACACACACAACATTGGTCGATTGAGTTTGTG
AACTTCTATGGGTGACGTTTCATGGTACCCCCAAAACAATTACACACAACAGGGACCCAAAAGGGGGGAAC
ATGCCTGGACCCACAGACTGCCTGAGAGAAAACAGCTGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC201214 protein sequence
Red=Cloning site Green=Tags(s)

MNGDDAFARRPTVGAQIPEKIQAFFDDIAKYFSKEEWEKMKASEKIFVYVMKRKYEAMTKLGFKATLPPF
 MCNKRAEDFQGNLDNDPNRGNQVERPQMTFGRLQGISPKIMPKKPAEEGNDSEEVPEASGPQNDGKELC
 PPGKPTTSEKIHESGNREAQEKEERRGTAHRWSSQNTNHNIGRFLSLSTSMGAVHGTPKTI THNRDPKGGN
 MPGPTDCVRENSW

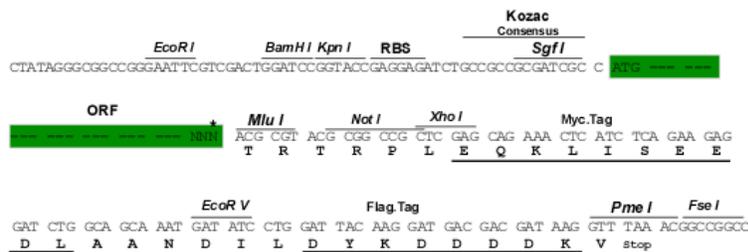
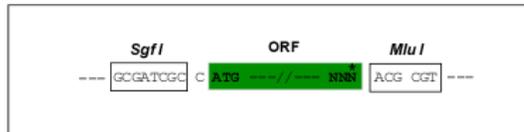
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6389_b05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_003147

ORF Size: 669 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: 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).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

RefSeq: [NM_003147.5](#)

RefSeq Size: 1494 bp

RefSeq ORF: 672 bp

Locus ID: 6757

UniProt ID: [Q16385](#)

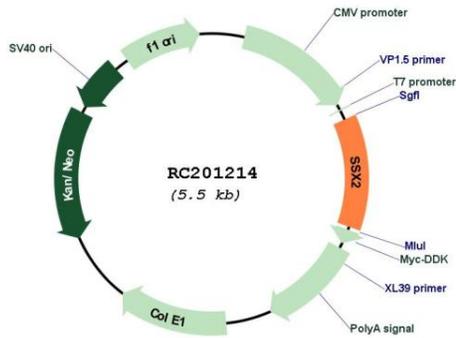
Cytogenetics: Xp11.22

Protein Families: Druggable Genome, Transcription Factors

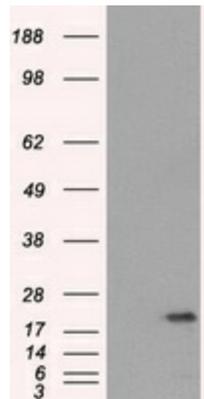
MW: 25.2 kDa

Gene Summary: The product of this gene belongs to the family of highly homologous synovial sarcoma X (SSX) breakpoint proteins. These proteins may function as transcriptional repressors. They are also capable of eliciting spontaneous humoral and cellular immune responses in cancer patients, and are potentially useful targets in cancer vaccine-based immunotherapy. This gene, and also the SSX1 and SSX4 family members, have been involved in t(X;18)(p11.2;q11.2) translocations that are characteristically found in all synovial sarcomas. This translocation results in the fusion of the synovial sarcoma translocation gene on chromosome 18 to one of the SSX genes on chromosome X. The encoded hybrid proteins are likely responsible for transforming activity. Alternative splicing of this gene results in multiple transcript variants. This gene also has an identical duplicate, GeneID: 727837, located about 45 kb downstream in the opposite orientation on chromosome X. [provided by RefSeq, Jul 2013]

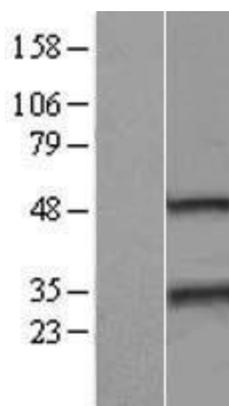
Product images:



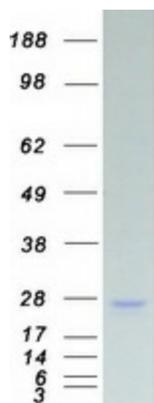
Circular map for RC201214



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SSX2 (Cat# RC201214, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SSX2(Cat# [TA500620]). Positive lysates [LY418870] (100ug) and [LC418870] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY418870]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201214 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SSX2 protein (Cat# [TP301214]). The protein was produced from HEK293T cells transfected with SSX2 cDNA clone (Cat# RC201214) using MegaTran 2.0 (Cat# [TT210002]).