

Product datasheet for RC200537

Stanniocalcin 2 (STC2) (NM_003714) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Stanniocalcin 2 (STC2) (NM_003714) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Stanniocalcin 2
Synonyms:	STC-2; STCRP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200537 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGTGCCGAGCGGCTGGGCCAGTTCATGACCCTGGCTTTGGTGTGGCCACCTTTGACCCGGCGCGGG
GGACCGACGCCACCAACCCACCCGAGGGTCCCCAAGACAGGAGCTCCAGCAGAAAGGCCGCTGTCCCT
GCAGAATACAGCGGAGATCCAGCACTGTTGGTCAACGCTGGCGATGTGGGTGTGGCGTGTGAAATGT
TTCGAGAACAACTCTTGAGATTGGGGCTTACATGGGATTTGCATGACTTTTCTGCACAACGCTGGAA
AATTTGATGCCAGGGCAAGTCATTCATCAAAGACGCCTTGAAATGTAAGGCCACGCTCTGCGGCACAG
GTTCCGGCTGCATAAGCCGGAAGTGCCCGCCATCAGGAAATGGTGTCCAGTTGCAGCGGGAATGCTAC
CTCAAGCACGACCTGTGCGCGGCTGCCAGGAGAACACCCGGGTGATAGTGGAGATGATCCATTTCAAGG
ACTTGCTGCTGCACGAACCTACGTGGACCTCGTGAACCTGCTGCTGACCTGTGGGGAGGAGGTGAAGGA
GGCCATCACCCACAGCGTGCAGGTTCAAGTGTGAGCAGAACTGGGGAAGCCTGTGCTCCATCTTGAGCTTC
TGACCTCGGCCATCCAGAAGCCTCCACGGCGCCCGGAGCGCCAGCCCAAGTGGACAGAACCAAGC
TCTCCAGGGCCACCACGGGAAGCAGGACATCACCTCCAGAGCCAGCAGTAGGGAGACTGGCCGAGG
TGCCAAGGGTGAAGGAGTAGCAAGAGCCACCCAAACGCCATGCCCGAGGCAGAGTCGGGGCCCTGGG
GCTCAGGGACCTCCGGAAGCAGCGAGTGGGAAGACGAACAGTCTGAGTATTCTGATATCCGGAGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC200537 protein sequence
Red=Cloning site Green=Tags(s)

MCAERLGQFMTLALVLATFDPARGTDATNPPEGPQDRSSQQKGRSLQNTAEIQHCLVNAGDVGCGVFEC
 FENNSCEIRGLHGICMTFLHNAGKFDAQKSF IKDALKCKAHLRHRFGCISRKCPAIREMVSQLORECY
 LKHDLCAAAQENTRVIVEMIHFKDLLLHEPYVDLVNLLLTCGEEVKEAITHSVQVQCEQNWGSLCSILSF
 CTSAIQKPPTAPPERQPQVDRTKLSRAHHGEAGHHLPEPSSRETGRGAKGERGSKSHPNAHARGRVGGLG
 AQGPSGSSEWEDEQSEYSDIRR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6125_c02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003714

ORF Size: 906 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_003714.2](#), [NP_003705.1](#)

RefSeq Size: 5361 bp

RefSeq ORF: 909 bp

Locus ID: 8614

UniProt ID: [O76061](#)

Cytogenetics: 5q35.2

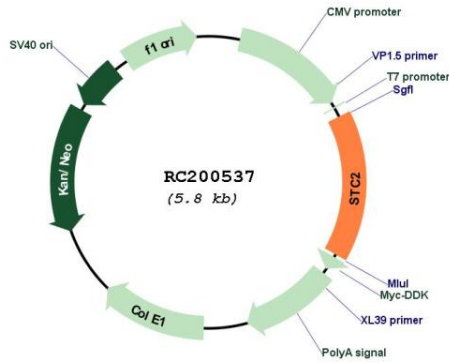
Domains: Stanniocalcin

Protein Families: Druggable Genome, Secreted Protein

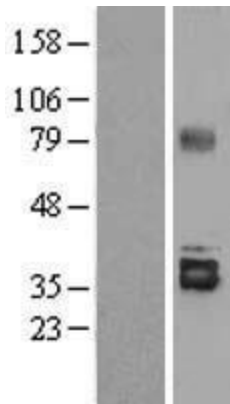
MW: 33.2 kDa

Gene Summary: This gene encodes a secreted, homodimeric glycoprotein that is expressed in a wide variety of tissues and may have autocrine or paracrine functions. The encoded protein has 10 of its 15 cysteine residues conserved among stanniocalcin family members and is phosphorylated by casein kinase 2 exclusively on its serine residues. Its C-terminus contains a cluster of histidine residues which may interact with metal ions. The protein may play a role in the regulation of renal and intestinal calcium and phosphate transport, cell metabolism, or cellular calcium/phosphate homeostasis. Constitutive overexpression of human stanniocalcin 2 in mice resulted in pre- and postnatal growth restriction, reduced bone and skeletal muscle growth, and organomegaly. Expression of this gene is induced by estrogen and altered in some breast cancers. [provided by RefSeq, Jul 2008]

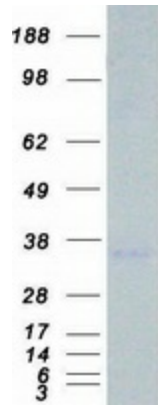
Product images:



Circular map for RC200537



Western blot validation of overexpression lysate (Cat# [LY401224]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200537 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified STC2 protein (Cat# [TP300537]). The protein was produced from HEK293T cells transfected with STC2 cDNA clone (Cat# RC200537) using MegaTran 2.0 (Cat# [TT210002]).