

Product datasheet for RC208944

SOX9 (NM_000346) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: SOX9 (NM_000346) Human Tagged ORF Clone

Tag: Myc-DDK

Symbol: SOX9

Synonyms: CMD1; CMPD1; SRA1; SRXX2; SRXY10

Mammalian Cell Neomycin

Selection:

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

OriGene Technologies, Inc.

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ORF Nucleotide Sequence:

>RC208944 representing NM_000346
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGAATCTCCTGGACCCCTTCATGAAGATGACCGACGAGCAGGAGAAGGGCCTGTCCGGCGCCCCCAGCC CCACCATGTCCGAGGACTCCGCGGGCTCGCCCTGCCCGTCGGGCTCCGGCTCGGACACCGAGAACACGCG GCCCCAGGAGAACACGTTCCCCAAGGGCGAGCCCGATCTGAAGAAGGAGAGCGAGGAGGACAAGTTCCCC GTGTGCATCCGCGAGGCGGTCAGCCAGGTGCTCAAAGGCTACGACTGGACGCTGGTGCCCATGCCGGTGC GCGTCAACGGCTCCAGCAAGAACAAGCCGCACGTCAAGCGGCCCATGAACGCCTTCATGGTGTGGGCGCA GGCGGCGCGCAGGAAGCTCGCGGACCAGTACCCGCACTTGCACAACGCCGAGCTCAGCAAGACGCTGGGC AAGCTCTGGAGACTTCTGAACGAGAGCGAGAAGCGGCCCTTCGTGGAGGAGGCGGAGCGGCTGCGCGTGC AGCACAAGAAGGACCACCCGGATTACAAGTACCAGCCGCGGCGGAGGAAGTCGGTGAAGAACGGGCAGGC GGAGGCAGAGGCCACGGAGCAGACGCACATCTCCCCCAACGCCATCTTCAAGGCGCTGCAGGCCGAC TCGCCACACTCCTCCGGCATGAGCGAGGTGCACTCCCCCGGCGAGCACTCGGGGCCAATCCCAGGGCC CACCGACCCCACCACCACAAAACCGACGTGCAGCCGGGCAAGGCTGACCTGAAGCGAGAGGGGCG CCCCTTGCCAGAGGGGGGCAGACAGCCCCCTATCGACTTCCGCGACGTGGACATCGGCGAGCTGAGCAGC GACGTCATCTCCAACATCGAGACCTTCGATGTCAACGAGTTTGACCAGTACCTGCCGCCCAACGGCCACC CGGGGGTGCCGCCACGCACGGCCAGGTCACCTACACGGGCAGCTACGGCATCAGCAGCACCGCGGCCAC CCCGGCGAGCGCGGCCACGTGTGGATGTCCAAGCAGCAGCCGCCGCCGCCACCCCCGCAGCAGCCCCCA CGCAGCAGCCACAGGCGCACACGCTGACCACGCTGAGCAGCCGGGCCAGTCCCAGCGAACGCACAT CAAGACGGAGCAGCTGAGCCCCAGCCACTACAGCGAGCAGCAGCAGCACTCGCCCCAACAGATCGCCTAC AGCCCCTTCAACCTCCCACACTACAGCCCCTCCTACCCGCCCATCACCCGCTCACAGTACGACTACACCG ACCACCAGAACTCCAGCTCCTACTACAGCCACGCGGCAGGCCAGGGCACCGGCCTCTACTCCACCTTCAC CTACATGAACCCCGCTCAGCGCCCCATGTACACCCCCATCGCCGACACCTCTGGGGTCCCTTCCATCCCG CAGACCCACAGCCCCCAGCACTGGGAACAACCCGTCTACACACAGCTCACTCGACCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC208944 representing NM_000346 Red=Cloning site Green=Tags(s)

MNLLDPFMKMTDEQEKGLSGAPSPTMSEDSAGSPCPSGSGSDTENTRPQENTFPKGEPDLKKESEEDKFP VCIREAVSQVLKGYDWTLVPMPVRVNGSSKNKPHVKRPMNAFMVWAQAARRKLADQYPHLHNAELSKTLG KLWRLLNESEKRPFVEEAERLRVQHKKDHPDYKYQPRRRKSVKNGQAEAEEATEQTHISPNAIFKALQAD SPHSSSGMSEVHSPGEHSGQSQGPPTPPTTPKTDVQPGKADLKREGRPLPEGGRQPPIDFRDVDIGELSS DVISNIETFDVNEFDQYLPPNGHPGVPATHGQVTYTGSYGISSTAATPASAGHVWMSKQQAPPPPPQQPP QAPPAPQAPPQPQAAPPQQPQAHTLTTLSSEPGQSQRTHIKTEQLSPSHYSEQQQHSPQQIAY SPFNLPHYSPSYPPITRSQYDYTDHQNSSSYYSHAAGQGTGLYSTFTYMNPAQRPMYTPIADTSGVPSIP QTHSPQHWEQPVYTQLTRP

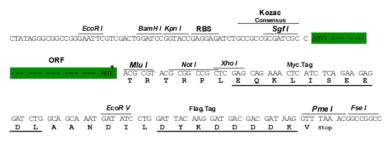
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-Mlul



Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF

ACCN: NM_000346

ORF Size: 1527 bp

OTI Disclaimer:

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at customport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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. <u>More info</u>

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.



Domains:

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

0.22um filter is required.

RefSeq: <u>NM 000346.4</u>

 RefSeq Size:
 3935 bp

 RefSeq ORF:
 1530 bp

 Locus ID:
 6662

 UniProt ID:
 P48436

 Cytogenetics:
 17q24.3

HMG

Protein Families: Adult stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS,

Induced pluripotent stem cells, Transcription Factors

MW: 56 kDa

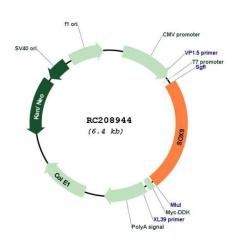
Gene Summary: The protein encoded by this gene recognizes the sequence CCTTGAG along with other

members of the HMG-box class DNA-binding proteins. It acts during chondrocyte

differentiation and, with steroidogenic factor 1, regulates transcription of the anti-Muellerian hormone (AMH) gene. Deficiencies lead to the skeletal malformation syndrome campomelic

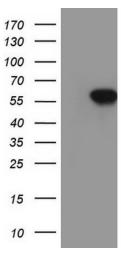
dysplasia, frequently with sex reversal. [provided by RefSeq, Jul 2008]

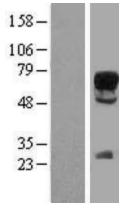
Product images:

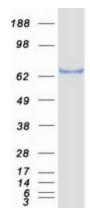


Circular map for RC208944









HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SOX9 (Cat# RC208944, 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-SOX9(Cat# [TA802387]). Positive lysates [LY424779] (100ug) and [LC424779] (20ug) can be purchased separately from OriGene.

Western blot validation of overexpression lysate (Cat# [LY424779]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208944 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

Coomassie blue staining of purified SOX9 protein (Cat# [TP308944]). The protein was produced from HEK293T cells transfected with SOX9 cDNA clone (Cat# RC208944) using MegaTran 2.0 (Cat# [TT210002]).