

## **Product datasheet for RC200757**

## SOX2 (NM\_003106) Human Tagged ORF Clone

## **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** SOX2 (NM\_003106) Human Tagged ORF Clone

Tag: Myc-DDK

Symbol: SOX2

Synonyms: ANOP3; MCOPS3

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)ORF Nucleotide>RC200757 ORF sequence

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC200757 protein sequence

Red=Cloning site Green=Tags(s)

MYNMMETELKPPGPQQTSGGGGGNSTAAAAGGNQKNSPDRVKRPMNAFMVWSRGQRRKMAQENPKMHNSE ISKRLGAEWKLLSETEKRPFIDEAKRLRALHMKEHPDYKYRPRRKTKTLMKKDKYTLPGGLLAPGGNSMA SGVGVGAGLGAGVNQRMDSYAHMNGWSNGSYSMMQDQLGYPQHPGLNAHGAAQMQPMHRYDVSALQYNSM TSSQTYMNGSPTYSMSYSQQGTPGMALGSMGSVVKSEASSSPPVVTSSSHSRAPCQAGDLRDMISMYLPG AEVPEPAAPSRLHMSQHYQSGPVPGTAINGTLPLSHM

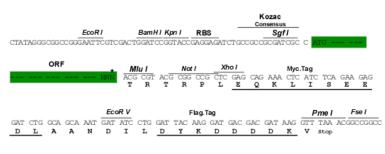
**TRTRPL**EQKLISEEDLAANDILDYKDDDDK**V** 

Chromatograms: <a href="https://cdn.origene.com/chromatograms/mk6051">https://cdn.origene.com/chromatograms/mk6051</a> b09.zip

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_003106

ORF Size: 951 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:** <u>NM 003106.4</u>

 RefSeq Size:
 2520 bp

 RefSeq ORF:
 954 bp

 Locus ID:
 6657

 UniProt ID:
 P48431

 Cytogenetics:
 3q26.33

Protein Families: Adult stem cells, Cancer stem cells, Embryonic stem cells, ES Cell Differentiation/IPS, Induced

pluripotent stem cells, Transcription Factors

MW: 34.3 kDa

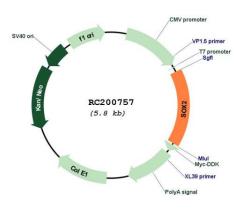
**Gene Summary:** This intronless gene encodes a member of the SRY-related HMG-box (SOX) family of

transcription factors involved in the regulation of embryonic development and in the determination of cell fate. The product of this gene is required for stem-cell maintenance in the central nervous system, and also regulates gene expression in the stomach. Mutations in

this gene have been associated with optic nerve hypoplasia and with syndromic

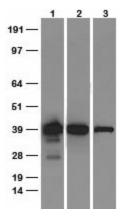
microphthalmia, a severe form of structural eye malformation. This gene lies within an intron of another gene called SOX2 overlapping transcript (SOX2OT). [provided by RefSeq, Jul 2008]

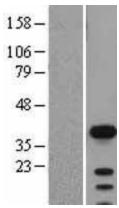
## **Product images:**

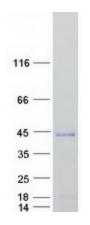


Circular map for RC200757









Western blot analysis of extracts from NCCIT cell line (35ug, lane 1), F9 cell line (35ug, lane 2) and HEK293T cells transfected with pCMV6-ENTRY\_SOX2 cDNA-RC200757 (5ug, lane 3), using anti-SOX2 rabbit monoclonal antibody ([TA591006]) at 1:500 dilution.

Western blot validation of overexpression lysate (Cat# [LY401083]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200757 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

Coomassie blue staining of purified SOX2 protein (Cat# [TP300757]). The protein was produced from HEK293T cells transfected with SOX2 cDNA clone (Cat# RC200757) using MegaTran 2.0 (Cat# [TT210002]).