

## Product datasheet for SC303842

### SHOX2 (NM\_006884) Human Untagged Clone

#### Product data:

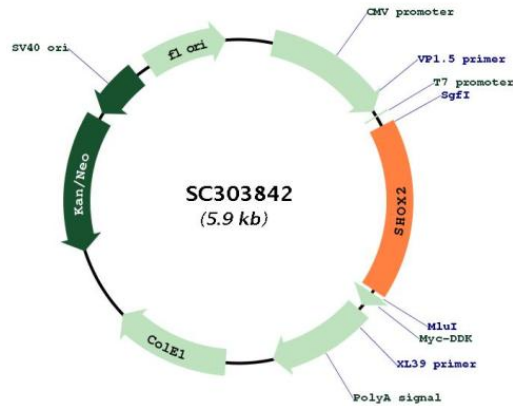
Product Type:	Expression Plasmids
Product Name:	SHOX2 (NM_006884) Human Untagged Clone
Tag:	Tag Free
Symbol:	SHOX2
Synonyms:	OG12; OG12X; SHOT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC303842 representing NM_006884. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTGTGAACCGTCAGAATTTTGTAAACGACTACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGAAGAAGCTTACGGCGTTTCGTCCTCAAGTCTTTTGACCAGAAAGTGAAGGAGAAGAAGGAGGCGATC
ACGTACCGGGAGGTGCTGGAGAGCGGGCCGCTGCGCGGGGCAAGGAGCCGACCGCTGCACCGAGGCG
GGCCGCGACGACCGCAGCAGCCCGCAGTCCGGGCGCCGGCGGAGGCGGCGGAGGAGGCGGAGGC
GGCGGCGGAGGAGGCGGAGGAGGTGTAGGAGGAGGAGCAGGCGGAGGAGCTGGAGGAGGCGCTCT
CCCGTCCGGGAGCTGGACATGGGCGCCCGAGAGAAGCAGGGAGCCGGCAGCCCGCAGCTGACGGAG
GTGTCCCGGAGCTGAAAGATCGCAAAGAGGATGCGAAAGGGATGGAGGACGAAGGCCAGACCAAAATC
AAGCAGAGGCGAAGTCCGACCAATTTACCCCTGGAACAACTCAATGAGCTGGAGAGGCTTTTGGAGGAG
ACCCACTATCCCGACGCCTTCATGCGAGAGGAACTGAGCCAGCGACTGGGCTGTGCGAGGCCCGAGTG
CAGGTTTGGTTTCAAATCGAAGAGCTAAATGTAGAAAACAAGAAAATCAACTCCATAAAGGTGTTCTC
ATAGGGGCGCCAGCCAGTTTGAAGCTTGTAGAGTCGCACCTTATGTCAACGTAGGTGCTTAAAGGATG
CCATTTACGAGGATAGTCATTGCAACGTGACGCCCTTGTCTTTCAGGTTTCAGGCGCAGCTGCAGCTG
GACAGCGCTGTGGCGCACGCGCACCCACCTGCATCCGACCTGGCCGCGCACGCGCCCTACATGATG
TTCCCAGCACCGCCCTTCGGACTGCCGCTGCCACGCTGGCCGCGGATTCGGCTTCCGCCCTCGGTA
GTGGCGGCGCAGCAGCCGCAAGACCACCAGCAAGAAGTCCAGCATCGCCGATCTCAGACTGAAAGCC
AAAAAGCACGCCGAGCCCTGGGTCTGTGA
ACGCGTACGCGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

Restriction Sites: SgfI-MluI



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**Plasmid Map:**


**ACCN:** NM\_006884

**Insert Size:** 996 bp

**OTI Disclaimer:** 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).

**OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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\\_006884.3](#)

**RefSeq Size:** 3161 bp

**RefSeq ORF:** 996 bp

**Locus ID:** 6474

UniProt ID: [O60902](#)

Cytogenetics: 3q25.32

Protein Families: Transcription Factors

MW: 35 kDa

**Gene Summary:** This gene is a member of the homeobox family of genes that encode proteins containing a 60-amino acid residue motif that represents a DNA binding domain. Homeobox genes have been characterized extensively as transcriptional regulators involved in pattern formation in both invertebrate and vertebrate species. Several human genetic disorders are caused by aberrations in human homeobox genes. This locus represents a pseudoautosomal homeobox gene that is thought to be responsible for idiopathic short stature, and it is implicated in the short stature phenotype of Turner syndrome patients. This gene is considered to be a candidate gene for Cornelia de Lange syndrome. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2009]  
Transcript Variant: This variant (2) lacks an alternate in-frame exon in the coding region, compared to variant 1, resulting in an isoform (a, also known as SHOX2a) that is shorter than isoform b. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.