

Product datasheet for **RG219520**

SHOX2 (NM_006884) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHOX2 (NM_006884) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SHOX2
Synonyms:	OG12; OG12X; SHOT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG219520 representing NM_006884 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAAGAACTTACGGCGTTTCGTCTCCAAGTCTTTTGACCAGAAAGTGAAGGAGAAGAAGGAGGCGATCA
CGTACCGGGAGGTGCTGGAGAGCGGGCCGCTGCGCGGGGCAAGGAGCCGACCGGCTGCACCGAGGCGGG
CCGCGACGACCGCAGCAGCCCGCAGTCCGGGCGGCCGGGAGGCGCGGAGGAGGCGGAGGCGGAGGCGG
GGCGGAGGAGGCGGAGGAGGTGTAGGAGGAGGTGAGCAGGCGGAGGAGCTGGAGGAGGGCGCTCTCCCG
TCCGGGAGCTGGACATGGGCGCCGCCGAGAGAAGCAGGGAGCCCGCAGCCCGCGCTGACGGAGGTGTC
CCCGGAGCTGAAAGATCGCAAAGACGATGCGAAAGGGATGGAGGACGAAGGCCAGACCAAAATCAAGCAG
AGGCGAAGTCCGACCAATTTACCCCTGGAACAACCTCAATGAGCTGGAGAGGCTTTTTGACGAGACCCACT
ATCCCGACGCCTTCATGCGAGAGGAACTGAGCCAGCGACTGGGCCTGTCCGGAGGCCCGAGTGCAGGTTTG
GTTTCAAATCGAAGAGCTAAATGTAGAAAACAAGAAAATCAACTCCATAAAGGTGTTTCATAGGGGCC
GCCAGCCAGTTTGAAGCTTGTAGAGTCGCACCTTATGTCAACGTAGGTGCTTTAAGGATGCCATTTTCAGC
AGGATAGTCATTGCAACGTGACGCCCTTGCCCTTCAGGTTTCAGGCGCAGCTGCAGCTGGACAGCGCTGT
GGCGCACGCGCACCAACCTGCATCCGCACCTGGCCGCGCACGCGCCCTACATGATGTTCCAGCACCG
CCCTTCGGACTGCCGCTCGCCACGCTGGCCGCGGATTCGGCTTCGCGCCTCGGTAGTGGCGGCCGCGAG
CAGCCGCAAGACCACCAGCAAGGACTCCAGCATCGCCGATCTCAGACTGAAAGCCAAAAGCACGCCGCG
AGCCCTGGGTCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG219520 representing NM_006884
 Red=Cloning site Green=Tags(s)

```
MEELTAFVSKSFDQKVKEKKEAITREVLESGPLRGAKEPTGCTEAGRDDRSPAVRAAGGGGGGGGGGG
GGGGGGVGGGGAGGGGSPVRELDMGAAERSREPGSPRLTEVSPELKDRKDDAKGMEDEGQTKIKQ
RRSRTNF TLEQLNELERLFDETHYPDAFMREELSQRLLGLSEARVQVWFQNRRAKCRKQENQLHKGLIGA
ASQFEACRVAPYVNVGALRMPFQQDSHCNVTPLPFQVQAQLQLDSAVAHAHHHLHPHLAAHAPYMMFPAP
PFGLPLATLAADSASAASVVAASAAAAAATTSKSSSIADLRLKAKKHAALGL
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006884

ORF Size: 993 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_006884.1](#), [NP_006875.1](#)

RefSeq Size: 1948 bp

RefSeq ORF: 996 bp

Locus ID: 6474

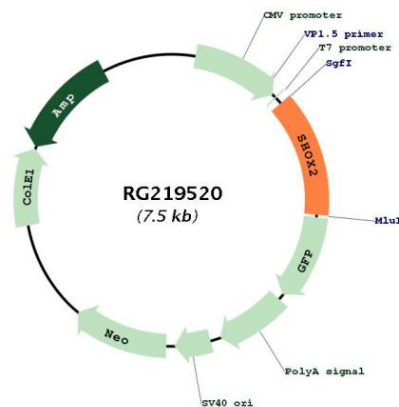
UniProt ID: [O60902](#)

Cytogenetics: 3q25.32

Protein Families: Transcription Factors

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]

Product images:



Circular map for RG219520