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Product datasheet for RC219520

SHOX2 (NM_006884) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHOX2 (NM_006884) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SHOX2
Synonyms:	OG12; OG12X; SHOT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC219520 representing NM_006884
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAAGAACTTACGGCGTTCGTCTCCAAGTCTTTTGACCAGAAAGTGAAGGAGAAGAAGGAGGCGATCA
CGTACCGGGAGGTGCTGGAGAGCGGGCCGCTGCGCGGGGCCAAGGAGCCGACCGGCTGCACCGAGGCGGG
CCGCGACGACCGCAGCAGCCCGGCAGTCCGGGCGGCCGGCGGAGGCGGCGGCGGAGGAGGCGGAGGCGGC
GGCGGAGGAGGCGGAGGAGGTGTAGGAGGAGGAGGAGCAGGCGGAGGAGCTGGAGGAGGGCGCTCTCCCG
TCCGGGAGCTGGACATGGGCGCCGCCGAGAGAAGCAGGGAGCCGGGCAGCCCGCGACTGACGGAGGTGTC
CCCGGAGCTGAAAGATCGCAAAGAGGATGCGAAAGGGATGGAGGACGAAGGCCAGACCAAAATCAAGCAG
AGGCGAAGTCGGACCAATTTCACCCTGGAACAACTCAATGAGCTGGAGAGGCTTTTTGACGAGACCCACT
ATCCCGACGCCTTCATGCGAGAGGAACTGAGCCAGCGACTGGGCCTGTCGGAGGCCCGAGTGCAGGTTTG
GTTTCAAAATCGAAGAGCTAAATGTAGAAAACAAGAAAATCAACTCCATAAAGGTGTTCTCATAGGGGCC
GCCAGCCAGTTTGAAGCTTGTAGAGTCGCACCTTATGTCAACGTAGGTGCTTTAAGGATGCCATTTCAGC
AGGATAGTCATTGCAACGTGACGCCCTTGTCCTTTCAGGTTCAGGCGCAGCTGCAGCTGGACAGCGCTGT
GGCGCACGCGCACCACCACCTGCATCCGCACCTGGCCGCGCACGCGCCCTACATGATGTTCCCAGCACCG
CCCTTCGGACTGCCGCTCGCCACGCTGGCCGCGGATTCGGCTTCCGCCGCCTCGGTAGTGGCGGCCGCAG
CAGCCGCCAAGACCACCAGCAAGAACTCCAGCATCGCCGATCTCAGACTGAAAGCCAAAAAGCACGCCGC
AGCCCTGGGTCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

View online »

Protein Sequence:

>RC219520 representing NM_006884
Red=Cloning site Green=Tags(s)

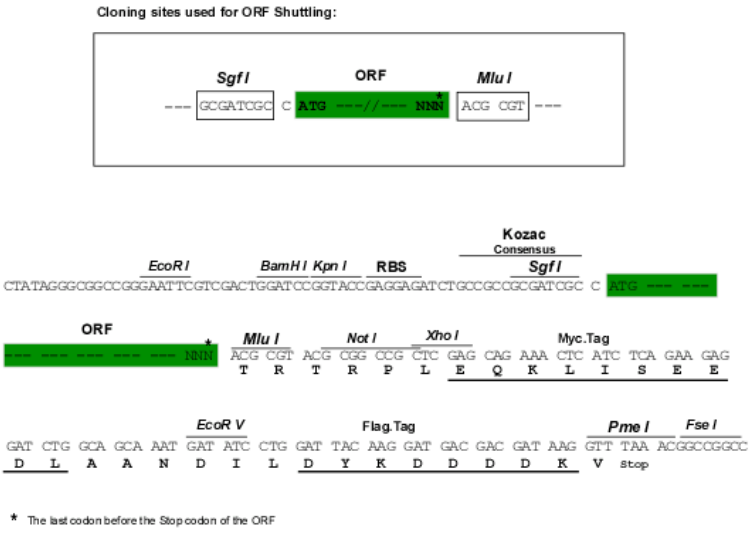
MEELTAFVSKSFDQKVKEKKEAITYREVLESGPLRGAKEPTGCTEAGRDDRSSPAVRAAGGGGGGGGGGG
GGGGGGGVGGGGAGGGAGGGRSPVRELDMGAAERSREPGSPRLTEVSPELKDRKEDAKGMEDEGQTKIKQ
RRSRTNFTLEQLNELERLFDETHYPDAFMREELSQRLGLSEARVQVWFQNRRAKCRKQENQLHKGVLIGA
ASQFEACRVAPYVNVGALRMPFQQDSHCNVTPLSFQVQAQLQLDSAVAHAHHHLHPHLAAHAPYMMFPAP
PFGLPLATLAADSASAASVVAAAAAAKTTSKNSSIADLRLKAKKHAAALGL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2451_b01.zip

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_006884.3, NP_006875.2

RefSeq Size: 1948 bp

RefSeq ORF: 996 bp

Locus ID: 6474

UniProt ID: O60902

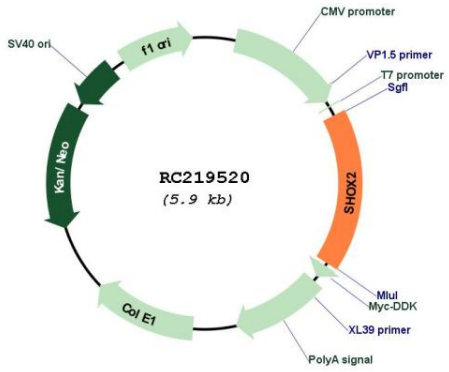
Cytogenetics: 3q25.32

Protein Families: Transcription Factors

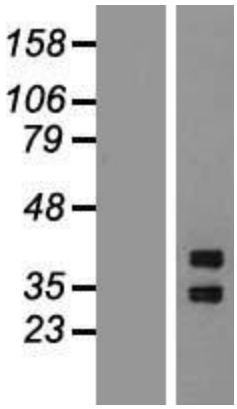
MW: 34.8 kDa

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]

Product images:



Circular map for RC219520



Western blot validation of overexpression lysate (Cat# [LY416363]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219520 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).