

Product datasheet for RC218605

SHOX (NM_000451) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHOX (NM_000451) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SHOX
Synonyms:	GCFX; PHOG; SHOXY; SS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC218605 representing NM_000451 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGAAGAGCTCACGGCTTTTGTATCCAAGTCTTTTGACCAGAAAAGCAAGGACGGTAACGGCGGAGGCG
 GAGGCGGCGGAGGTAAGAAGGATTCCATTACGTACCGGGAAGTTTGGAGAGCGGACTGGCGCGCTCCCG
 GGAGCTGGGGACGTCGGATTCCAGCCTCCAGGACATCACGGAGGGCGGCGCCACTGCCCGGTGCATTTG
 TTCAAGGACCACGTAGACAATGACAAGGAGAACTGAAAGAATTCGGCACCGCGAGAGTGGCAGAAGGGA
 TTTATGAATGCAAAGAGAAGCGCGAGGACGTGAAGTCGGAGGACGAGGACGGGCAGACCAAGCTGAAACA
 GAGGCGCAGCCGACCAACTTCACGCTGGAGCAGCTGAACGAGCTCGAGCGACTCTTCGACGAGACCCAT
 TACCCCGACGCTTCATGCGCGAGGAGCTCAGCCAGCGCCTGGGGCTCTCCGAGGCGCGCGTGCAGGTTT
 GGTTCCAGAACCAGGAGAGCCAAGTGCCGCAACAAGAGAATCAGATGCATAAAGGCGTCATCTTGGGCAC
 AGCCAACCACCTAGACGCTGCGGAGTGGCACCCTACGTCAACATGGGAGCCTTACGGATGCCTTTCCAA
 CAGGTCCAGGCTCAGCTGCAGCTGGAAGGCGTGGCCACGCGCACCCGCACCTGCACCCGCACCTGGCGG
 CGCACGCGCCCTACCTGATGTTCCCCCGCCGCCCTTCGGGCTGCCCATCGCGTCGCTGGCCGAGTCCGC
 CTCGGCCGCCCGTGGTCGCCGCCGCCCAAAAGCAACAGCAAGAATTCAGCATCGCCGACCTGCGG
 CTCAAGGCGCGGAAGCACGCGGAGGCCCTGGGGCTC

ACGCGTACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC218605 representing NM_000451

Red=Cloning site Green=Tags(s)

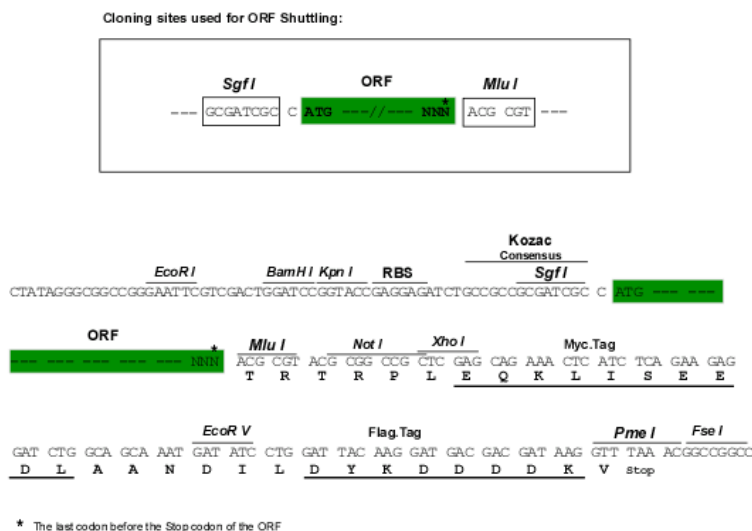
MEELTAFVSKSFDQKSKDGNNGGGGGGGKKDSITYREVLESGLARSRGLTSDSSLQDITEGGGHCPVHL
FKDHVDNDKEKLKEFGTARVAEGIYECKEKREDVKSEDEGQTKLKQRRSRTNFTLEQLNELERLFDETH
YPDAFMREELSQRLGLSEARVQVWFQNRRAKCRKQENQMHKGVILGTANHLDACRVAPYVNMGALRMPFQ
QVQAQLQLEGVAAHAPHLPHLAAHAPYLMFPPPPFGLPIASLAESASAAAVVAAAASNSKNSSIADLR
LKARKHAEGALGL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8021_c04.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_000451

ORF Size: 876 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_000451.3](#), [NP_000442.1](#)

RefSeq Size: 4559 bp

RefSeq ORF: 879 bp

Locus ID: 6473

UniProt ID: [O15266](#)

Cytogenetics: X;Y

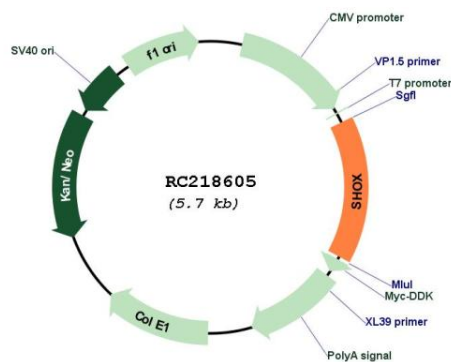
Domains: homeobox, OAR

Protein Families: Transcription Factors

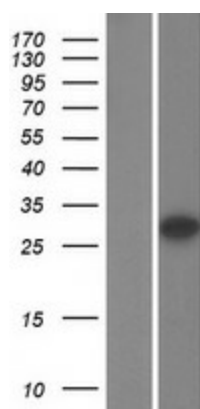
MW: 32.1 kDa

Gene Summary: This gene belongs to the paired homeobox family and is located in the pseudoautosomal region 1 (PAR1) of X and Y chromosomes. Defects in this gene are associated with idiopathic growth retardation and in the short stature phenotype of Turner syndrome patients. This gene is highly conserved across species from mammals to fish to flies. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene. [provided by RefSeq, Jul 2008]

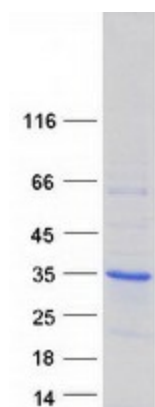
Product images:



Circular map for RC218605



Western blot validation of overexpression lysate (Cat# [LY424707]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218605 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SHOX protein (Cat# [TP318605]). The protein was produced from HEK293T cells transfected with SHOX cDNA clone (Cat# RC218605) using MegaTran 2.0 (Cat# [TT210002]).