

## Product datasheet for **RG210161**

### Homeobox protein SIX6 (SIX6) (NM\_007374) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Homeobox protein SIX6 (SIX6) (NM_007374) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Homeobox protein SIX6
Synonyms:	MCOPCT2; ODRMD; OPTX2; Six9
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210161 representing NM_007374 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTCCAGCTGCCCATCTTGAATTTAGCCCCAGCAAGTGGCCGGGTATGTGAGACCCTGGAAGAGA  
GCGGCGATGTGGAGCGCCTGGTTCCTCTGGTCGCTGCCCGTGGCCCTGCGGCCTGCGAGGCCCT  
CAACAAGAATGAGTCGGTCTACGCGCAGGACCATCGTGGCCTTTCACGGTGGCAACTACCGGAGCTC  
TATCATATCCTGAAAACCAAGTTCACCAAGGAGTCGCACGCCAAGCTGCAGGCGCTGTGGCTTGAAG  
CACACTACCAGGAGGCTGAGAAGCTGCGTGAAGACCCCTGGGACCTGTGGACAAGTACCGAGTAAGGAA  
GAAGTTCCCGCTGCCGCGCACCATTTGGGACGGCGAACAGAAGACACACTGCTTCAAGGAGCGCACGCGG  
AACCTGCTACGCGAGTGGTACCTGCAGGATCCATACCCTAACCCAGCAAAAAACGTGAGCTCGCCAGG  
CAACCGGACTGACCCCTACGCAGGTGGGCAACTGGTTCAAAAACCGCCGACAAAGGGACCGAGCGGCTGC  
AGCCAAGAACAGACTCCAGCAGCAGGTCCTGTACAGGGTTCCGGGCGGGCACTACGGGCGGAGGGCGAC  
GGCAGGCCAGAGGTGCTGGGCGTCGCCACCAGCCCGCCAGTCTATCCAGCAAGGCGGCCACTTCAG  
CCATCTCCATCACGTCCAGCGACAGCGAGTGCGACATC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG210161 representing NM\_007374  
 Red=Cloning site Green=Tags(s)

MFQLPILNFSPPQVAVGCETLEESGDVERLGRFLWSLPVAPAACEALNKNESVLRARAIVAFHGGNYREL  
 YHILENHKFTKESHAKLQALWLEAHYQEAELRGRPLGPVDKYRVRKKFPLPRTIWDGEQKTHCFKERTR  
 NLLREWYLQDPYPNPSKKRELAQATGLTPTQVGNWFKNRRQRDRAAAAKNRLQQQVLSQSGSRALRAEGD  
 GTPEVLGVATSPAASLSSKAATSAISITSSDSECDI

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_007374

**ORF Size:** 738 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\\_007374.1](#), [NP\\_031400.1](#)

**RefSeq Size:** 1391 bp

**RefSeq ORF:** 741 bp

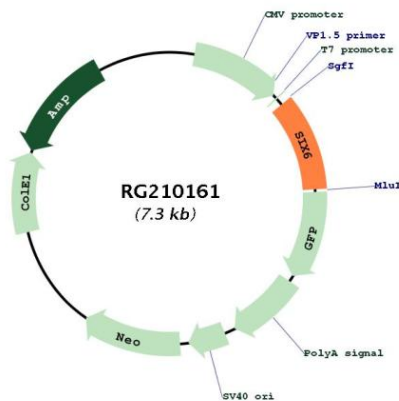
**Locus ID:** 4990

**UniProt ID:** [O95475](#)

**Cytogenetics:** 14q23.1

**Gene Summary:** The protein encoded by this gene is a homeobox protein that is similar to the *Drosophila* 'sine oculis' gene product. This gene is found in a cluster of related genes on chromosome 14 and is thought to be involved in eye development. Defects in this gene are a cause of isolated microphthalmia with cataract type 2 (MCOPCT2). [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG210161