

## Product datasheet for **RC219004**

### OTX2 (NM\_172337) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	OTX2 (NM_172337) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	OTX2
Synonyms:	CPHD6; MCOPS5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC219004 representing NM_172337 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGATGTCTTATCTTAAGCAACCGCCTTACGCAGTCAATGGGCTGAGTCTGACCACTTCGGGTATGGACT  
TGCTGCACCCCTCCGTGGGCTACCCGGCCACCCCGGAAACAGCGCCGGGAGAGGACGACGTTCACTCG  
GGCGCAGCTAGATGTGCTGGAAGCACTGTTTGCCAAGACCCGGTACCCAGACATCTTCATGCGAGAGGAG  
GTGGCACTGAAAATCAACTGCCCAGTCGAGGGTGCAGGTATGGTTTAAAGATCGAAGAGCTAAGTGCC  
GCCAACAAACAGCAACAACAGCAGAATGGAGGTCAAACAAGTGAGACCTGCCAAAAAGAAGACATCTCC  
AGCTCGGGAAGTGAGTTCAGAGAGTGGAACAAGTGCCCAATCACTCCCCCTCTAGCACCTCAGTCCCG  
ACCATTGCCAGCAGCAGTCTCCTGTGTCTATCTGGAGCCAGCTTCCATCTCCCACTGTCTCAGATCCCT  
TGTCCACCTCCTCTTCTGCATGCAGAGGTCTATCCCATGACCTATACTCAGGCTTCAGGTTATAGTCA  
AGGATATGCTGGCTCAACTTCTACTTTGGGGCATGGACTGTGGATCATATTTGACCCCTATGCATCAC  
CAGTTCCCGGACCAGGGGCCACACTCAGTCCCATGGGTACCAATGCAGTACCAGCCATCTCAATCAGT  
CCCCAGTTCTCTTCCACCCAGGGATATGGAGCTTCAAGCTTGGGTTTAACTCAACCAGTATTGCTT  
GGATTATAAGGACCAAAGTGCCTCCTGGAAGCTTAACTCAATGCTGACTGCTTGGATTATAAGATCAG  
ACATCCTCGTGGAAATCCAGGTTTTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC219004 representing NM\_172337  
Red=Cloning site Green=Tags(s)

MMSYLKQPPYAVNGLSLTTSMDLLHPSVGYPATPRKQRRERTTFTRAQLDVLEALFAKTRYPDIFMREE  
 VALKINLPESRVQVWFKNRRACRQQQQQQNGGQNKVRPAKKKTSAPAREVSSSESGTSGQFPPSSSTSVP  
 TIASSSAPVSIWSPASISPLSDPLSTSSSCMQRSYPMTYTQASGYSQGYAGSTSYFGGMDCGSYLTPMHH  
 QLPGPGATLSPMGNTAVTSHLNQSPASLSTQGYGASSLGFNSTTDCLDYKDQTASWKLNFNADCLDYKDQ  
 TSSWKFQVL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8049\\_g03.zip](https://cdn.origene.com/chromatograms/mk8049_g03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_172337

**ORF Size:** 867 bp

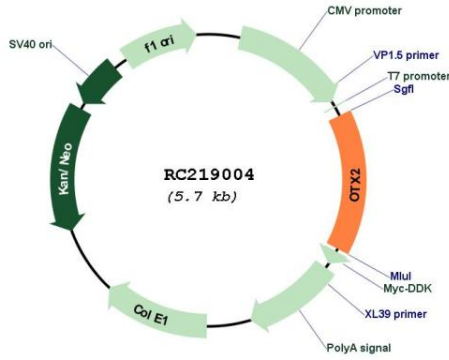
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

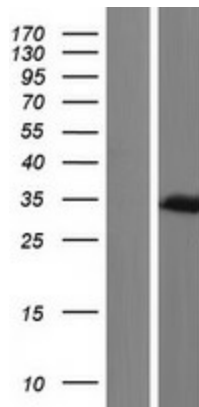
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_172337.3</a>
<b>RefSeq Size:</b>	2082 bp
<b>RefSeq ORF:</b>	870 bp
<b>Locus ID:</b>	5015
<b>UniProt ID:</b>	<a href="#">P32243</a>
<b>Cytogenetics:</b>	14q22.3
<b>Protein Families:</b>	Embryonic stem cells, Induced pluripotent stem cells, Stem cell - Pluripotency, Transcription Factors
<b>MW:</b>	31.5 kDa
<b>Gene Summary:</b>	<p>This gene encodes a member of the bicoid subfamily of homeodomain-containing transcription factors. The encoded protein acts as a transcription factor and plays a role in brain, craniofacial, and sensory organ development. The encoded protein also influences the proliferation and differentiation of dopaminergic neuronal progenitor cells during mitosis. Mutations in this gene cause syndromic microphthalmia 5 (MCOPS5) and combined pituitary hormone deficiency 6 (CPHD6). This gene is also suspected of having an oncogenic role in medulloblastoma. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Pseudogenes of this gene are known to exist on chromosomes two and nine. [provided by RefSeq, Jul 2012]</p>

Product images:



Circular map for RC219004



Western blot validation of overexpression lysate (Cat# [LY406713]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219004 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).