

Product datasheet for **RC207479**

OTX2 (NM_021728) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OTX2 (NM_021728) 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:	>RC207479 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGATGTCTTATCTTAAGCAACCGCCTTACGCAGTCAATGGGCTGAGTCTGACCACTTCGGGTATGGACT
TGCTGCACCCCTCCGTGGGCTACCCGGGGCCCTGGGCTTCTTGTCCCGCAGCCACCCCCGGAAACAGCG
CCGGGAGAGGACGACGTTCACTCGGGCGCAGCTAGATGTGCTGGAAGCACTGTTTGCCAAGACCCGGTAC
CCAGACATCTTCATGCGAGAGGAGGTGGCACTGAAAATCAACTTGCCCGAGTCGAGGGTGCAGGTATGGT
TTAAGAATCGAAGAGCTAAGTGCCGCCAACACAGCAACAACAGCAGAATGGAGGTCAAAACAAAGTGAG
ACCTGCCAAAAAGAAGACATCTCCAGCTCGGGAAGTGAGTTCAGAGAGTGAACAAGTGGCCAATCACT
CCCCCTCTAGCACCTCAGTCCCGACCATTGCCAGCAGCAGTGCTCCTGTGTCTATCTGGAGCCAGCTT
CCATCTCCCCACTGTCAGATCCCTTGTCCACCTCCTCTTCTGTCATGCAGAGGTCCTATCCCATGACCTA
TACTCAGGCTTCAGGTTATAGTCAAGGATATGCTGGCTCAACTTCTACTTTGGGGGCATGGACTGTGGA
TCATATTTGACCCCTATGCATCACCAGCTTCCCGACCAGGGGCCACACTCAGTCCCATGGGTACCAATG
CAGTCACCAGCCATCTCAATCAGTCCCCAGCTTCTTTCCACCCAGGGATATGGAGCTTCAAGCTTGGG
TTTTAACTCAACCACTGATTGCTTGGATTATAAGGACCAAACTGCCTCCTGGAAGCTTAACTTCAATGCT
GACTGCTTGGATTATAAAGATCAGACATCCTCGTGGAAATTCAGGTTTTG

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC207479 protein sequence
Red=Cloning site Green=Tags(s)

MMSYLKQPPYAVNGLSLTTSGMDLLHPSVGYGPWASCPAATPRKQRRERTTFTRAQLDVLEALFAKTRY
 PDIFMREEVALKINLPESRVQVWFKNRRAKCRQQQQQQNGGQNKVRPAKKKTSAPAREVSSSESGTSGQFT
 PPSSTSVPTIASSAPVSIWSPASISPLSDPLSTSSSCMQRSYPMTYTQASGYSQGYAGSTSYFGGMDCG
 SYLTPMHHQLPGPGATLSPMGTNAVTSHLNQSPASLSTQGYGASSLGFNSTTDCLDYKDQTASWKLNFNA
 DCLDYKDQTSWKFQVL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6287_h05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_021728

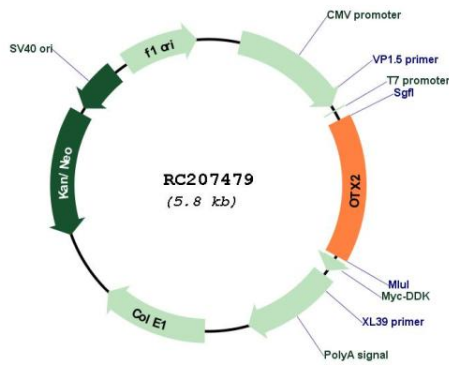
ORF Size: 891 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

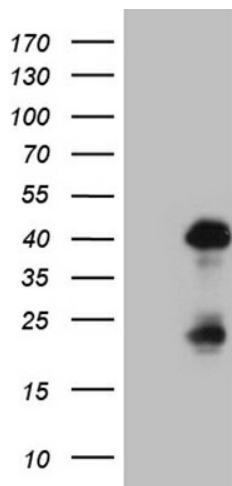
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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:	<ol style="list-style-type: none">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_021728.4
RefSeq Size:	2219 bp
RefSeq ORF:	894 bp
Locus ID:	5015
UniProt ID:	P32243
Cytogenetics:	14q22.3
Domains:	homeobox, TF_Otx
Protein Families:	Embryonic stem cells, Induced pluripotent stem cells, Stem cell - Pluripotency, Transcription Factors
MW:	32.4 kDa
Gene Summary:	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]

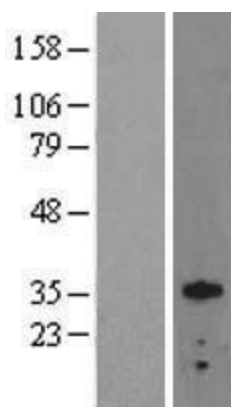
Product images:



Circular map for RC207479



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY OTX2 (Cat# RC207479, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-OTX2 (Cat# [TA809511])(1:2000). Positive lysates [LY411946] (100ug) and [LC411946] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY411946]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207479 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).