

OTX2 cDNA

Catalog Number: ATGD0291

PRODUCT INFORMATION

Catalog number

ATGD0291

Product type

cDNA

Species

Human

NCBI Accession No.

NP_758840.1

Alternative Names

CPHD6, MCOPS5

mRNA Refseq

NM_172337.2

OMIM

600037

Chromosome location

14q22.3

PRODUCT SPECIFICATION

Formulation

Lyophilized

Storage

Store the plasmid at -20C.

cDNA Size

870bp

Preparation before usage

1. Centrifuge at 7000rpm for 1 minute.
2. Carefully open the vial and add 100ul of sterile water to dissolve the DNA. Each tube contains approximately 10ug of lyophilized plasmid.

Vector description

This shuttle vector contains the complete ORF. It is inseted BamH I to Xho I. The gene insert contains multiple cloning sites which can be used to easily cut and transfer the gene and recombination site into your expression vector.

Cloning Vector

pATGen (puc19-derived cloning vector)

General Description

OTX2 cDNA

Catalog Number: ATGD0291

OTX2 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.

DATA

Sequence nucleotides

```
ATGATGTCTTATCTTAAGCAACCGCCTTACGCAGTCAATGGGCTGAGTCTGACCACTTCGGGTATGGACTTGCTGCACCCCT
CCGTGGGCTACCCGGCCACCCCCGGAAACAGCGCCGGGAGAGGACGACGTTCACTCGGGCGCAGCTAGATGTGCTGGA
AGCACTGTTTGCCAAGACCCGGTACCCAGACATCTTCATGCGAGAGGAGGTGGCACTGAAAATCAACTTGCCCGAGTCGAG
GGTGCAGGTATGGTTTTAAGAATCGAAGAGCTAAGTGCCGCCAACACAGCAACAACAGCAGAATGGAGGTCAAACAAAGT
GAGACCTGCCAAAAGAAGACATCTCCAGCTCGGGAAGTGAGTTCAGAGAGTGGAACAAGTGGCCAATTCCTCCCCCTC
TAGCACCTCAGTCCCGACCATTGCCAGCAGCAGTGCTCCTGTGTCTATCTGGAGCCCAGCTTCCATCTCCCCACTGTCAGAT
CCCTTGCCACCTCCTCTTCTGCATGCAGAGGTCCTATCCCATGACCTATACTCAGGCTTCAGGTTATAGTCAAGGATATGC
TGGCTCAACTTCCTACTTTGGGGGCATGGACTGTGGATCATATTTGACCCCTATGCATCACCAGCTTCCCGGACCAGGGGCC
ACACTCAGTCCCATGGGTACCAATGCAGTCACCAGCCATCTCAATCAGTCCCCAGCTTCTCTTCCACCCAGGGATATGGAG
CTTCAAGCTTGGGTTTTAACTCAACCACTGATTGCTTGGATTATAAGGACCAAACGCCTCCTGGAAGCTTAACTTCAATGCT
GACTGCTTGGATTATAAAGATCAGACATCCTCGTGGAATTCAGGTTTTGTGA
```

Transaction Sequence

```
MMSYLKQPPY AVNGLSLTTS GMDLLHPSVG YPATPRKQRR ERTTFTRAQL DVLEALFAKT RYPDIFMREE VALKINLPES
RVQVWFKNRR AKCROQQQQQ QNGGQNKVRP AKKKTSPARE VSESGTSGQ FTPPSSTVSP TIASSAPVS IWSPASISPL
SDPLSTSSSC MQRSPMTYT QASGYSQGYA GSTSYFGGMD CGSYLTPMHH QLPGPGATLS PMGTNAVTSN LNQSPASLST
QGYGASSLGF NSTTDCLDYK DQTASWKLNF NADCLDYKDQ TSSWKFQVL
```