

## Recombinant Human OTX2

**Cat. No.** OTX2-165H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human Homeobox Protein OTX2 is produced with our E. coli expression system. The target protein is expressed with sequence (Met1-Leu297) of Human OTX2.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	1-297 a.a.
<b>Description</b>	Homeobox Protein OTX2 is a member of the paired homeobox family of the Bicoid subfamily. OTX2 contains 1 homeobox DNA-binding domain and expresses in brain. OTX2 may play a role in the development of the brain and the sense organs. OTX2 positively regulate of gastrulation and embryonic development. Defects in OTX2 are the cause of microphthalmia syndromic type 5, which is a clinically heterogeneous disorder of eye formation, ranging from small size of a single eye to complete bilateral absence of ocular tissues. It also causes pituitary hormone deficiency combined type 6. Combined pituitary hormone deficiency is defined as the impaired production of growth hormone and one or more of the other five anterior pituitary hormones.
<b>Form</b>	Lyophilized from a 0.2 µM filtered solution of 20mM PB, 150mM NaCl, pH 7.4
<b>AA Sequence</b>	MMSYLKQPPYAVNGLSLTTSGMDLLHPSVGYPGPWASCPAATPRKQRRERTTFTR AQLDVLEALF AKTRYPDIFMREEVALKINLPESRVQVWFKNRRAKCRQQQQQQQN GGQNKVRPAKKKTSPAREVS SESGTSGQFTPPSSTSVPTIASSAPVSIWSPASISP

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LSDPLSTSSSCMQRSYPMYTYQASGYSQ GYAGSTSYFGGMDCGSYLTPMHHQLP  
 GPGATLSPMGTTNAVTSHLNQSPASLSTQGYGASSLGFNS TTDCLDYKDQTASWKL  
 NFNADCLDYKDQTSSWKQVLLLEHHHHHHH

**Endotoxin** Less than 0.1 ng/μg (1 IEU/μg).

**Purity** Greater than 95% as determined by SEC-HPLC and reducing SDS-PAGE.

**Storage** Lyophilized protein should be stored at Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at

**Reconstitution** Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 μg/ml. Dissolve the lyophilized protein in 1X PBS. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

## GENE INFORMATION

**Gene Name** [OTX2 orthodenticle homeobox 2 \[ Homo sapiens \]](#)

**Official Symbol** OTX2

**Synonyms** OTX2; orthodenticle homeobox 2; orthodenticle homolog 2 (Drosophila); homeobox protein OTX2; orthodenticle homolog 2; CPHD6; MCOPS5; MGC45000;

**Gene ID** [5015](#)

**mRNA Refseq** [NM\\_021728](#)

**Protein Refseq** [NP\\_068374](#)

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<b>MIM</b>	600037
<b>UniProt ID</b>	P32243
<b>Chromosome Location</b>	14q22.3
<b>Function</b>	RNA polymerase II core promoter proximal region sequence-specific DNA binding transcription factor activity involved in positive regulation of transcription; eukaryotic initiation factor 4E binding; protein binding; sequence-specific DNA binding; sequence-specific DNA binding transcription factor activity;

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