Recombinant Human OTX2

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

SPECIFICATION

Product Overview	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.
Species	Human
Source	E.coli
ProteinLength	1-297 a.a.
Description	Homeobox Protein OTX2 is a number 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.
Form	Lyophilized from a 0.2 μM filtered solution of 20mM PB, 150mM NaCl, pH 7.4
AA Sequence	MMSYLKQPPYAVNGLSLTTSGMDLLHPSVGYPGPWASCPAATPRKQRRERTTFTR AQLDVLEALF AKTRYPDIFMREEVALKINLPESRVQVWFKNRRAKCRQQQQQQQN GGQNKVRPAKKKTSPAREVS SESGTSGQFTPPSSTSVPTIASSSAPVSIWSPASISP

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	LSDPLSTSSSCMQRSYPMTYTQASGYSQ GYAGSTSYFGGMDCGSYLTPMHHQLP GPGATLSPMGTNAVTSHLNQSPASLSTQGYGASSLGFNS TTDCLDYKDQTASWKL NFNADCLDYKDQTSSWKFQVLLEHHHHHH
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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MIM	600037
UniProt ID	P32243
Chromosome Location	14q22.3
Function	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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