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Rabbit Anti-OTX2 antibody

SL11597R

Product Name:	OTX2
Chinese Name:	转录因子OTX2抗体
Alias:	CPHD6; Homeobox protein OTX2; MCOPS 5; MCOPS5; MGC45000; Orthodenticle 2; Orthodenticle homeobox 2; Orthodenticle homolog 2 (Drosophila); Orthodenticle homolog 2; Orthodenticle2; Otx 2; otx2; OTX2_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Cow,Horse,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	32kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human OTX2:15-105/289
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Transcription factors, OTX1 and OTX2, are two murine homologs of the Drosophila orthodenticle (OTD), show a limited amino acid sequence divergence. OTX1 and OTX2 play an important role during early and later events required for proper brain development in that they are involved in the processes of induction, specification and regionalization of the brain. OTX1 is involved in corticogenesis, sensory organ

development and pituitary functions, while OTX2 is necessary earlier in development, for the correct anterior neural plate specification and organization of the primitive streak. OTX2 is also required in the early specification of the neuroectoderm, which is destined to become the fore-midbrain, and both OTX1 and OTX2 co-operate in patterning the developing brain through a dosage-dependent mechanism. A molecular mechanism depending on a precise threshold of OTX proteins is necessary for the correct positioning of the isthmic region and for anterior brain patterning. The genes which encode OTX1 and OTX2 map to human chromosomes 2p13 and 14q21-q22, respectively.

Function:
Probably plays a role in the development of the brain and the sense organs. Can bind to the BCD target sequence (BTS): 5'-TCTAATCCC-3'.

Subcellular Location:
Nucleus.

Tissue Specificity:
Expressed in brain.

DISEASE:
Defects in OTX2 are the cause of microphthalmia syndromic type 5 (MCOPS5) [MIM:610125]. Microphthalmia is a clinically heterogeneous disorder of eye formation, ranging from small size of a single eye to complete bilateral absence of ocular tissues. Up to 80% of cases of microphthalia occur in association with syndromes that include non-ocular abnormalities. MCOPS5 patients manifest unilateral or bilateral microphthalmia/clinical anophthalmia and variable additional features including coloboma, microcornea, cataract, retinal dystrophy, hypoplasia or agenesis of the optic nerve, agenesis of the corpus callosum, developmental delay, joint laxity, hypotonia, and seizures.

Similarity:
Belongs to the paired homeobox family. Bicoid subfamily.
Contains 1 homeobox DNA-binding domain.

SWISS:
P32243

Gene ID:
5015

Database links:

Entrez Gene: 5015 Human

Entrez Gene: 18424 Mouse

	Entrez Gene: 305858 Rat Omim: 600037 Human SwissProt: P32243 Human SwissProt: P80206 Mouse SwissProt: Q64201 Rat Unigene: 288655 Human Unigene: 134516 Mouse Unigene: 35222 Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.