BOSTER BIOLOGICAL TECHNOLOGY Co.,Ltd.
3942 B Valley Ave, Pleasanton, CA, 94566
Phone: 888-466-3604 Fax: 925-215-2184 Email: boster@bosterbio.com Web: www.bosterbio.com

Polyclonal Anti-Otx2 Picoband™ Antibody

Catalog Number: PB9344

Description

Gene Name	orthodenticle homeobox 2
Recommended Protein Name	Homeobox protein OTX2
Lot No.	0931512Da924432
Size	100μg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	**Reacts with:** human
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Otx2 (258-289aa DYKDQTASWKLNFNADCLDYKDQTSSWKFQVL), identical to the related mouse sequence.
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg NaN_3.

Application

	Concentration	Tested Species	Antigen Retrieval
Western blot	0.1-0.5μg/ml	Hu	-

WB: The detection limit for Otx2 is approximately 0.1ng/lane under reducing conditions.

Tested Species: In-house tested species with positive results.

Other applications have not been tested.

Optimal dilutions should be determined by end users.

Preparation and storage

Reconstitution: 0.2ml of distilled water will yield a concentration of 500μg/ml.

Storage: At -20˚C for one year. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for a longer time.
Avoid repeated freezing and thawing.

Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB.

Background

OTX2 is also known as CPHD6 or MCOPS5. 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.

Reference

1. Bunt J, et al. OTX2 sustains a bivalent-like state of OTX2-bound promoters in medulloblastoma by maintaining their H3K27me3 levels. Acta Neuropathol, 2013 Mar.
2. Gat-Yablonski G. Brain development is a multi-level regulated process--the case of the OTX2 gene. Pediatr Endocrinol Rev, 2011 Sep.
3. Liu Z, et al. Specific expression pattern of a novel Otx2 splicing variant during neural differentiation. Gene, 2013 Jul 1.