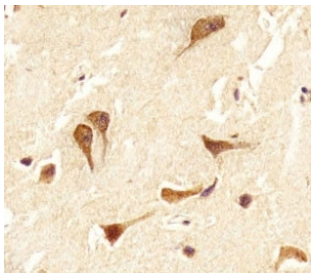
Orthodenticle Homolog 2 Antibody / OTX2 (F52800)

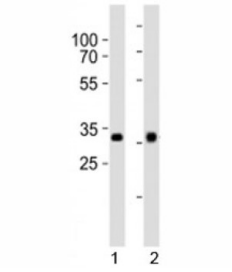
Catalog No.	Formulation	Size
F52800-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F52800-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P32243
Applications	IHC (Paraffin): 1:25 Western blot: 1:1000
Limitations	This Orthodenticle Homolog 2 Antibody is available for research use only.



Orthodenticle Homolog 2 Antibody Human Brain IHC. Immunohistochemical staining of FFPE human brain tissue demonstrates orthodenticle homolog 2 expression with prominent brown DAB staining in neuronal nuclei and cell bodies, consistent with the localization of OTX2 as a homeobox transcription factor. Nuclei are counterstained blue with hematoxylin. The staining pattern reflects the established role of OTX2 in neuronal differentiation, maintenance, and central nervous system function. This Orthodenticle Homolog 2 Antibody, also called OTX2 Antibody, is suitable for immunohistochemical studies of neural development, transcriptional regulation, and brain biology.



Orthodenticle Homolog 2 Antibody Human Liver and Retinoblastoma WB. Western blot analysis detects orthodenticle homolog 2 in human HepG2 (lane 1) and Y79 retinoblastoma (lane 2) cell lysates. A distinct immunoreactive band is observed at approximately 32 kDa in both samples, consistent with the expected molecular weight of OTX2. The strong signal in Y79 cells agrees with the well-established expression of OTX2 in retinoblastoma and retinal lineage cells. This Orthodenticle Homolog 2 Antibody, also called OTX2 Antibody, is suitable for Western blot studies of neural development, retinal biology, and transcriptional regulation.

Description

Orthodenticle Homolog 2 Antibody recognizes OTX2, a homeobox-containing transcription factor that is indispensable for vertebrate embryonic development and central nervous system patterning. OTX2 regulates gene expression programs that direct formation of the forebrain, midbrain, retina, retinal pigment epithelium, pineal gland, inner ear, and pituitary gland. Through sequence-specific DNA binding, OTX2 controls cellular differentiation, tissue specification, and organ development, making it one of the key developmental transcription factors required during early embryogenesis.

Orthodenticle homolog 2 remains biologically important after development, where it supports maintenance of retinal cells and specialized neuronal populations. In the visual system, OTX2 is essential for photoreceptor differentiation, retinal pigment epithelial cell function, and long-term retinal homeostasis. It also contributes to neuronal maturation and cortical plasticity through intercellular transfer to specific interneuron populations. An OTX2 Antibody is therefore widely used to investigate neural development, retinal biology, and stem cell differentiation.

Aberrant expression of orthodenticle homolog 2 has been associated with congenital developmental abnormalities and several human cancers. Increased OTX2 expression has been reported in medulloblastoma, retinoblastoma, pineoblastoma, and additional malignancies where it promotes cellular proliferation, lineage maintenance, and tumor progression. Consequently, researchers frequently examine orthodenticle homolog 2 together with other developmental transcription factors to better understand embryogenesis, neurobiology, and oncogenic signaling pathways.

An Orthodenticle Homolog 2 Antibody is a valuable research tool for investigating OTX2 expression, transcriptional regulation, neural development, retinal biology, stem cell differentiation, and cancer biology.

For additional information about this developmental transcription factor, see our OTX2 Antibody / Orthodenticle Homeobox 2 Antibody page.

Application Notes

Titration of the Orthodenticle Homolog 2 Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This OTX2 antibody was produced from a rabbit immunized with a KLH conjugated synthetic peptide between 201-226 amino acids from the C-terminal region of human OTX2.

Storage

Aliquot the OTX2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Orthodenticle Homolog 2 antibody, OTX2 antibody, Orthodenticle Homeobox 2 antibody, Homeobox Protein OTX2 antibody

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