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VSX2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16493b

Specification

VSX2 Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	P58304
Other Accession	NP_878314.1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**39411**
Antigen Region	**263-291**

VSX2 Antibody (C-term) - Additional Information

Gene ID 338917

Other Names
Visual system homeobox 2, Ceh-10 homeodomain-containing homolog, Homeobox protein CHX10, VSX2, CHX10, HOX10

Target/Specificity
This VSX2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 263-291 amino acids from the C-terminal region of human VSX2.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
VSX2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

VSX2 Antibody (C-term) - Protein Information

Name VSX2

Synonyms CHX10, HOX10

Function Acts as a transcriptional regulator through binding to DNA at the consensus sequence 5'-[TC]TAATT[AG][AG]-3' upstream of gene promoters (PubMed:27301076). Plays a significant role in the specification and morphogenesis of the sensory retina (By similarity). May play a role in specification of V2a interneurons during spinal cord development (By similarity). Mediates differentiation of V2a interneurons by repression of motor neuron gene transcription, via competitively binding to response elements that are activated by the ISL1-LHX3 complex, such as VSX1 (PubMed:17919464, PubMed:27477290). Acts as a positive transcriptional regulator of NXNL1; regulation is significantly increased in synergy with VSX1 (By similarity). Acts as a negative transcriptional regulator of MITF (By similarity). Represses SAG transcription by competitive inhibition of ISL1-LHX3 response elements (PubMed:16236706, PubMed:27477290). Binds to the photoreceptor conserved element-1 (PCE-1) in the promoter of rod photoreceptor arrestin SAG and acts as a transcriptional repressor (By similarity). Involved in the development of retinal ganglion cells (RGCs) which leads to release of SHH by RGCs, promoting Hedgehog signaling and subsequent proliferation of retinal progenitor cells (By similarity). Participates in the development of the cells of the inner nuclear layer, by promoting postnatal differentiation of bipolar cells with a comparable inhibition of rod cell differentiation (By similarity). May play a role in the maintenance of neural retina identity during development by regulation of canonical Wnt genes and CTNNB1 localization, suggesting a role in the regulation of canonical Wnt signaling (PubMed:27301076).

Cellular Location
Nucleus {ECO:0000250|UniProtKB:Q61412}.

Tissue Location
Abundantly expressed in retinal neuroblasts during eye development and in the inner nuclear layer of the adult retina Within this layer, expression is stronger in the outer margin where bipolar cells predominate

VSX2 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

VSX2 Antibody (C-term) - Images

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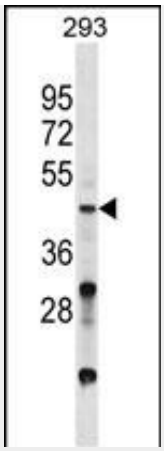

VSX2 Antibody (C-term) (Cat. #AP16493b) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the VSX2 antibody detected the VSX2 protein (arrow).

VSX2 Antibody (C-term) - Background

This gene encodes a homeobox protein originally described as a retina-specific transcription factor. Mutations in this gene are associated with microphthalmia, cataracts and iris abnormalities.

VSX2 Antibody (C-term) - References

Gonzalez-Rodriguez, J., et al. Br J Ophthalmol 94(8):1100-1104(2010)
Iseri, S.U., et al. Hum. Genet. 128(1):51-60(2010)
Reichman, S., et al. Hum. Mol. Genet. 19(2):250-261(2010)
Nagel, S., et al. Mol. Cancer 9, 151 (2010) :
Zhang, X., et al. Mol. Vis. 15, 2911-2918 (2009) :