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CHX10 Antibody

Rabbit mAb
Catalog # AP92502

Product Information

Application	WB, FC
Primary Accession	P58304
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	CHX 10; HOX10; MCOP2; MCOPCB3; RET1; Vsx2;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	39411

Additional Information

Dilution	WB 1:500~1:2000 FC 1:200
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human CHX10
Description	Plays a significant role in the specification and morphogenesis of the sensory retina. May also participate in the development of the cells of the inner nuclear layer, particularly bipolar cells.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

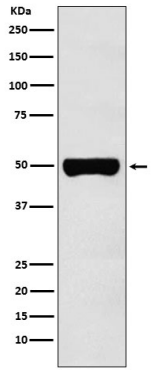
Name	VSX2
Synonyms	CHX10, HOX10
Function	Acts as a transcriptional regulator through binding to DNA at the consensus sequence 5'-[TC]TAATT[AG][AG]-3' upstream of gene promoters (PubMed:27301076). Plays a significant role in the specification and morphogenesis of the sensory retina (By similarity). May 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

Images



Western blot analysis of CHX10 expression in Y79 cell lysate.