

Product datasheet

Anti-CHX10 antibody ab16141

★★★★☆ 3 Abreviews 18 References 1 Image

Overview

Product name	Anti-CHX10 antibody
Description	Sheep polyclonal to CHX10
Host species	Sheep
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Mouse, Rat
Immunogen	Recombinant fragment corresponding to Human CHX10 aa 264-361 (C terminal). Sequence: EAAAEKPEGERQALPKLDKMEQDERGPDAQAAISQEEL RENSIAVLRAKA QEHSTKVLGTVSGPDSLARSTEKPEEEEEAMDEDRPAERL SPPQLEDMA

Database link: [P58304](#)

 [Run BLAST with](#)

 [Run BLAST with](#)

General notes

Chx10 is a 46kDa homeodomain protein of the paired-like class that is essential for development of the mammalian eye. Mutations in Chx10 cause microphthalmia, a cause of congenital blindness in humans, and the ocular retardation (or) phenotype in mice. In the developing mouse retina Chx10 is expressed in retinal progenitors, while in the mature retina, Chx10 expression becomes restricted to bipolar neurons. Concurrent with these expression patterns, the Chx10^{-/-} (or) retina is thin due to a defect in proliferation of retinal progenitors, and lacks bipolar neurons. Chx10 is also expressed in the developing brainstem, thalamus, and spinal cord.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form Liquid

Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.08% Sodium azide Constituent: PBS
Purity	Ammonium Sulphate Precipitation
Clonality	Polyclonal
Isotype	IgG

Applications

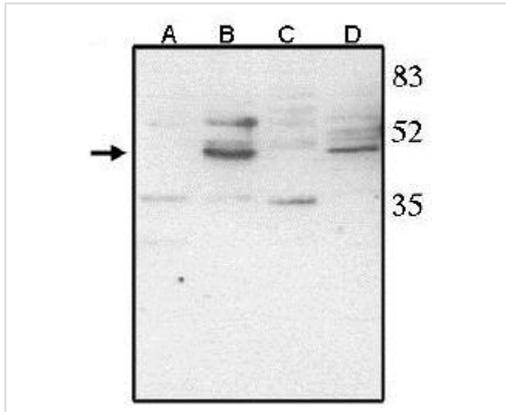
The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab16141 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 0.5 - 1 µg/ml. Detects a band of approximately 46 kDa.

Target

Function	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.
Tissue specificity	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.
Involvement in disease	Defects in VSX2 are the cause of microphthalmia isolated type 2 (MCOP2) [MIM:610093]; also known as isolated clinical anophthalmia. Microphthalmia is a clinically heterogeneous disorder of eye formation, ranging from small size of a single eye to complete bilateral absence of ocular tissues. Ocular abnormalities like opacities of the cornea and lens, scarring of the retina and choroid, cataract and other abnormalities like cataract may also be present. Defects in VSX2 are the cause of microphthalmia with cataracts and iris abnormalities (MCOPCTI) [MIM:610092]. Defects in VSX2 are the cause of microphthalmia isolated with coloboma type 3 (MCOPCB3) [MIM:610092]; also known as isolated colobomatous microphthalmia 3. Ocular colobomas are a set of malformations resulting from abnormal morphogenesis of the optic cup and stalk, and the fusion of the fetal fissure (optic fissure).
Sequence similarities	Belongs to the paired homeobox family. Contains 1 CVC domain. Contains 1 homeobox DNA-binding domain.
Cellular localization	Nucleus.

Images



Western blot - Anti-CHX10 antibody (ab16141)

Western blot analysis using ab16141 at 1 µg/ml on rat liver (A), rat retina tissue lysate (B), mouse liver (C) and mouse retina tissue lysate (D).

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