Anti-CRALBP Antibody [PSH0-74] - BSA and Azide free

HA750653

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IF-Tissue, IHC-Fr
Molecular Wt:	Predicted band size: 36.5 kDa
Clone number:	PSH0-74

Description: Retinaldehyde-binding protein 1 (RLBP1) also known as cellular retinaldehyde-binding protein (CRALBP) is a 36-kD water-soluble protein that in humans is encoded by the RLBP1 gene. The cellular retinaldehyde-binding protein transports 11-cis-retinal (also known as 11-cis-retinaldehyde) as its physiological ligands. It plays a critical role as an 11-cis-retinal acceptor which facilitates the enzymatic isomerization of all 11-trans-retinal to 11-cis-retinal, in the isomerization of the rod and cones of the visual cycle. CRALBP is not just found in retina and retinal pigment epithelial cells, but also expressed in other cell types. It is majorly found in the iris, cornea, ciliary epithelium, Muller cells, the pineal gland and oligodendrocytes of the optic nerve and brain. This protein is also found in other tissues than the aforementioned ones, however its function in cells not related to the eyes are not yet known.

Immunogen: Recombinant protein within human CRALBP aa 1-317 / 317.

Positive control: SK-MEL-28 cell lysate, mouse eyeball tissue lysate, rat eyeball tissue lysate, mouse eyeball tissue, mouse retina tissue.

Subcellular location: Cytoplasm.

Database links: SwissProt: P12271 Human | Q9Z275 Mouse
Entrez Gene: 293049 Rat

Recommended Dilutions:

WB	1:1,000-1:5,000
IHC-P	1:500-1:1,000
IF-Tissue	1:200
IHC-Fr	1:500

Storage Buffer: 1*PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

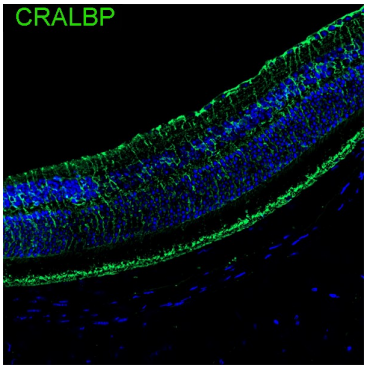

Fig1: Application: IHC-Fr

Species: Mouse

Site: Retina

Sample: Frozen section

Antibody concentration: 1/500

Antigen retrieval: Not required

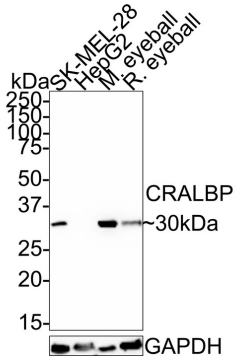

Fig2: Western blot analysis of CRALBP on different lysates with Rabbit anti-CRALBP antibody (HA750653) at 1/1,000 dilution.

Lane 1: SK-MEL-28 cell lysate
Lane 2: HepG2 cell lysate (negative cell)
Lane 3: Mouse eyeball tissue lysate
Lane 4: Rat eyeball tissue lysate

Lysates/proteins at 30 µg/Lane.

Predicted band size: 36.5 kDa
Observed band size: 30 kDa

Exposure time: 43 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA750653) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:100,000 dilution was used for 1 hour at room temperature.

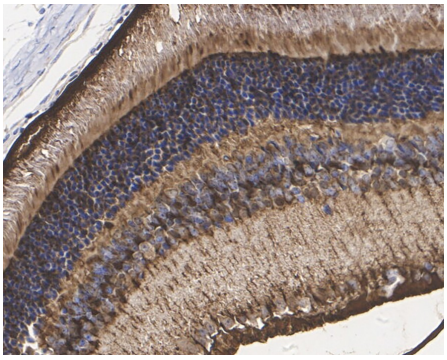

Fig3: Immunohistochemical analysis of paraffin-embedded mouse retina tissue with Rabbit anti-CRALBP antibody (HA750653) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA750653) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

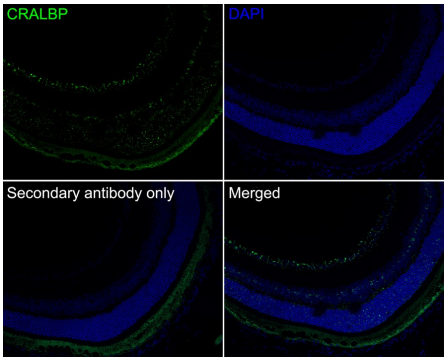

Fig4: Application: IF-tissue

Species: Mouse

Site: Retina

Sample: Paraffin-embedded section

Antibody concentration: 1/200

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Chen DD et al. The downregulation of HSP90-controlled CRALBP expression is associated with age-related vision attenuation. FASEB J. 2023 Mar
2. Lima de Carvalho JR Jr et al. Effects of deficiency in the RLBP1-encoded visual cycle protein CRALBP on visual dysfunction in humans and mice. J Biol Chem. 2020 May