

Anti-RPE Antibody

HA500234



Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IHC-P, IF-Cell
Molecular Wt:	25 kDa

Description: Phosphopentose epimerase (also known as ribulose-phosphate 3-epimerase and ribulose 5-phosphate 3-epimerase) encoded by the RPE gene is a metalloprotein that catalyzes the interconversion between D-ribulose 5-phosphate and D-xylulose 5-phosphate. This reversible conversion is required for carbon fixation in plants – through the Calvin cycle – and for the nonoxidative phase of the pentose phosphate pathway. This enzyme has also been implicated in additional pentose and glucuronate interconversions.

Immunogen: Recombinant protein within human RPE aa 50-228.

Positive control: Mouse heart tissue lysate, human heart tissue lysate, human small intestine tissue, SH-SY5Y.

Subcellular location: Cytosol, extracellular exosome.

Database links: SwissProt Q96AT9 Human | Q8VEE0 Mouse

Recommended Dilutions:

WB	1:2,000-5,000
IHC-P	1:500-1:5,000
IF-Cell	1:50-1:100

Storage Buffer: 1*TBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% SodiumAzide.

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

Purity: Immunogen affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

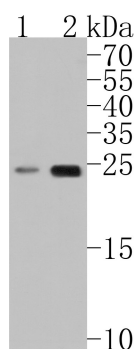


Fig1: Western blot analysis of RPE on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (HA500234, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

Positive control:

Lane 1: Mouse heart tissue lysate

Lane 2: Human heart tissue lysate

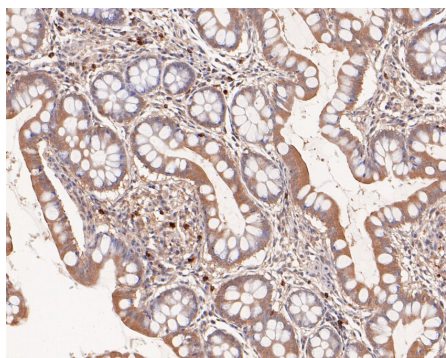


Fig2: Immunohistochemical analysis of paraffin-embedded human small intestine tissue using anti-RPE antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA500234, 1/400) for 30 minutes 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.

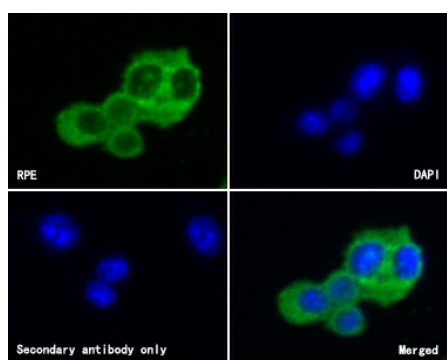


Fig3: ICC staining of RPE in SH-SY5Y cells (green). Methanol fixed cells were blocked with 10% negative goat serum for 15 minutes at room temperature. Cells were probed with the primary antibody (HA500234, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 conjugate-Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

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

Background References

1. Le SB. et al. 6-Phosphofructokinase and ribulose-5-phosphate 3-epimerase in methylotrophic *Bacillus methanolicus* ribulose monophosphate cycle. *Appl Microbiol Biotechnol.* 2017 May
2. Akana J. et al. D-Ribulose 5-phosphate 3-epimerase: functional and structural relationships to members of the ribulose-phosphate binding (beta/alpha)₈-barrel superfamily. *Biochemistry.* 2006 Feb

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