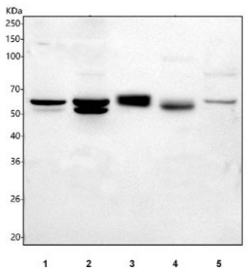
BEST1 Antibody / Bestrophin 1 Polyclonal Antibody (RQ8699)

Catalog No.	Formulation	Size
RQ8699	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 days
Species Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity chromatography
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	O88870
Applications	Western Blot : 1-2ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This BEST1 Antibody / Bestrophin 1 Polyclonal Antibody is available for research use only.



BEST1 Antibody Western Blot of Rat and Mouse Tissues and Cell Lines. Western blot testing of rat brain (lane 1), rat C6 glioma cells (lane 2), mouse eye (lane 3), mouse brain (lane 4), and mouse Neuro-2a neuroblastoma cells (lane 5) with BEST1 Antibody. A predominant bestrophin-1 band is detected at approximately 60-65 kDa across the samples, with particularly strong signal in mouse eye. The observed migration is consistent with the expected molecular weight of full-length rodent bestrophin-1, and the eye tissue signal is consistent with the established importance of BEST1 in retinal biology. This multi-sample western blot demonstrates rodent protein detection using the Bestrophin 1 Polyclonal Antibody.

Description

BEST1 Antibody / Bestrophin 1 Polyclonal Antibody recognizes bestrophin-1, an integral membrane protein encoded by the BEST1 gene. Bestrophin-1 belongs to a family of ion channel proteins and is particularly important in retinal biology. The protein is strongly associated with retinal pigment epithelial function, where it participates in the regulation of ion movement and cellular signaling processes that help maintain the specialized environment required for normal photoreceptor activity.

Bestrophin-1 is a transmembrane protein that assembles into oligomeric channels containing a central ion-conducting pore. BEST1 functions as a calcium-activated anion channel with permeability to chloride and other anions. Its activity is influenced by intracellular calcium and contributes to the electrical and ionic properties of cells expressing the protein. A BEST1 Antibody can therefore support research into the relationship between bestrophin-1 expression, ion transport, and cellular physiology.

The retinal pigment epithelium performs essential supportive functions for the neural retina, including regulation of nutrient and ion transport, recycling of visual-cycle components, phagocytosis of photoreceptor outer segments, and maintenance of the outer blood-retinal barrier. Bestrophin-1 is concentrated primarily at the basolateral membrane of retinal pigment epithelial cells and has been investigated for its contributions to ion homeostasis, calcium-dependent signaling, and epithelial function.

BEST1 is also notable because pathogenic variants cause a group of inherited retinal disorders collectively known as bestrophinopathies. The best-known of these is Best vitelliform macular dystrophy, which led to the historical gene designation VMD2. Other BEST1-associated disorders include autosomal recessive bestrophinopathy, adult-onset vitelliform macular dystrophy, and certain forms of vitreoretinochoroidopathy and retinitis pigmentosa. Disease-associated variants can alter channel activity, protein trafficking, oligomer assembly, or protein stability.

Animal models provide an important approach for investigating the physiological functions of bestrophin-1 and the consequences of altered BEST1 activity. Comparative studies can help characterize the relationship between bestrophin expression, retinal physiology, ion-channel function, and disease-associated mechanisms while complementing research performed with human experimental systems.

A BEST1 Antibody provides a reagent for investigating bestrophin-1 expression and ion-channel biology, while a Bestrophin 1 Polyclonal Antibody provides protein-name terminology for research involving retinal physiology, epithelial homeostasis, and bestrophin-associated mechanisms.

For a human-reactive alternative targeting this protein, see our Bestrophin 1 Antibody / BEST1 Polyclonal Antibody page.

Application Notes

Optimal dilution of the BEST1 Antibody / Bestrophin 1 Polyclonal Antibody should be determined by the researcher.

Immunogen

An E.coli-derived mouse recombinant protein (amino acids V9-E551) was used as the immunogen for the BEST1 Antibody.

Storage

After reconstitution, the BEST1 Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Bestrophin 1 antibody, Bestrophin-1 antibody, Bestrophin antibody, VMD2 antibody, Vitelliform Macular Dystrophy 2 antibody

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