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BEST2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9246b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q8NFU1
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24342
Calculated MW	57139
Antigen Region	374-403

Additional Information

Gene ID	54831
Other Names	Bestrophin-2, Vitelliform macular dystrophy 2-like protein 1, BEST2, VMD2L1
Target/Specificity	This BEST2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 374-403 amino acids from the C-terminal region of human BEST2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	BEST2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BEST2 (HGNC:17107)
Synonyms	VMD2L1
Function	Ligand-gated anion channel that allows the movement of anions across cell membranes when activated by calcium (Ca2+) (PubMed:11904445,

PubMed:18400985, PubMed:32251414, PubMed:35789156, PubMed:36289327). Transports a large specter of anions, namely mediates the movement of chloride, L-glutamate and iodide (PubMed:11904445, PubMed:18400985, PubMed:32251414, PubMed:35789156, PubMed:36289327). Calcium-binding triggers the dilation of the aperture, but calcium- dependent gating is only effective when the size of the passing anion is bigger than the closed aperture (By similarity). Mediates the calcium-activated hydrogencarbonate movement and participates in colonic hydrogencarbonate secretion concomitant with mucin secretion (By similarity). In non-pigmented epithelium (NPE), mediates the efflux of intracellular L-glutamate; binding of intracellular L-glutamate activates and open both the neck and the aperture of the channel, leading to L-glutamate exit promoting chloride influx movement from the extracellular side in trans (PubMed:36289327). Also exhibits a directional permeability for intracellular glutamine, in a similar manner as for L-glutamate (PubMed:36289327).

Cellular Location

Cell membrane {ECO:0000250|UniProtKB:E1BF86}; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein

Tissue Location

Mainly confined to the retinal pigment epithelium (PubMed:12032738). Expressed in colon (PubMed:12032738, PubMed:20407206).

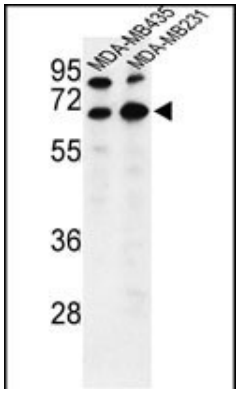
Background

BEST2 is a member of the bestrophin gene family of anion channels. Bestrophin genes share a similar gene structure with highly conserved exon-intron boundaries, but with distinct 3' ends. Bestrophins are transmembrane proteins that contain a homologous region rich in aromatic residues, including an invariant arg-phe-pro motif.

References

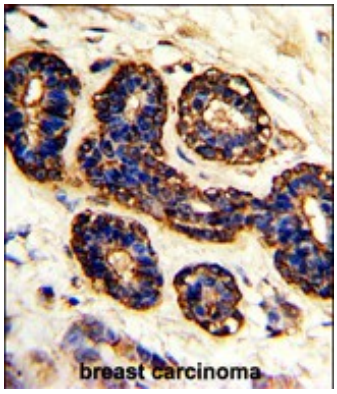
Zhang,Y., et.al, Mol. Vis. 16, 200-206 (2010)
Marsey,L.L. et.al, J. Physiol. (Lond.) 587 (PT 10), 2211-2224 (2009)

Images



Western blot analysis of BEST2 Antibody (C-term) (Cat. #AP9246b) in MDA-MB435,MDA-MB231 cell line lysates (35ug/lane).BEST2 (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human breast carcinoma with BEST2 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



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