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DSU Rabbit pAb

Catalog # AP97929

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q8N565
Other Accession	Q8N565
Reactivity	Rat, Mouse
Predicted	Pig, Human, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	24927
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human DSU
Epitope Specificity	101-200/214
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the melanoregulin family.
SUBUNIT	Interacts with PRPH2.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The photoreceptor rod cell that is responsible for vision under conditions of low light consists of stacked arrays of disk membranes that make up its outer segment portion. Regulated by complex biochemical mechanisms, the rod outer segment is under constant renewal as new disks form at the base. MREG is thought to play a role in membrane fusion and in regulating the biogenesis of disk membranes of photoreceptor rods. MREG interacts with RDS (also known as Peripherin-2), a photoreceptor specific tetraspanin protein that is required to maintain normal cell structure during the renewal process of membrane fusion. MREG is 214 amino acids in length, is expressed in photoreceptor cells and and is expressed as two isoforms due to alternative splicing.

Additional Information

Gene ID	55686
Other Names	DSU; WDT2; Gm974; MREG_HUMAN; MREG; Dilute suppressor protein homolog; MREG_MOUSE; Dilute suppressor protein; Whn-dependent transcript 2; melanoregulin
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	MREG
Synonyms	DSU
Function	Probably functions as a cargo-recognition protein that couples cytoplasmic vesicles to the transport machinery. Plays a role in hair pigmentation, a process that involves shedding of melanosome- containing vesicles from melanocytes, followed by phagocytosis of the melanosome-containing vesicles by keratinocytes. Functions on melanosomes as receptor for RILP and the complex formed by RILP and DCTN1, and thereby contributes to retrograde melanosome transport from the cell periphery to the center. Overexpression causes accumulation of late endosomes and/or lysosomes at the microtubule organising center (MTOC) at the center of the cell. Probably binds cholesterol and requires the presence of cholesterol in membranes to function in microtubule-mediated retrograde organelle transport. Binds phosphatidylinositol 3-phosphate, phosphatidylinositol 4-phosphate, phosphatidylinositol 5-phosphate and phosphatidylinositol 3,5- bisphosphate, but not phosphatidylinositol 3,4-bisphosphate or phosphatidylinositol 4,5-bisphosphate (By similarity). Required for normal phagosome clearing and normal activation of lysosomal enzymes in lysosomes from retinal pigment epithelium cells (PubMed:19240024). Required for normal degradation of the lipofuscin component N- retinylidene-N-retinylethanolamine (A2E) in the eye. May function in membrane fusion and regulate the biogenesis of disk membranes of photoreceptor rod cells (By similarity).
Cellular Location	Apical cell membrane {ECO:0000250|UniProtKB:Q6NVG5}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q6NVG5}. Melanosome membrane {ECO:0000250|UniProtKB:Q6NVG5}; Lipid-anchor {ECO:0000250|UniProtKB:Q6NVG5}. Lysosome membrane {ECO:0000250|UniProtKB:Q6NVG5}; Lipid-anchor {ECO:0000250|UniProtKB:Q6NVG5}. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:Q6NVG5}. Note=Localizes to the inner segment and basal outer segment of rods in the retina {ECO:0000250|UniProtKB:Q6NVG5}
Tissue Location	Expressed in photoreceptor cells (at protein level).

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