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BBS4 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP11093a

Specification

BBS4 Antibody (N-term) Blocking peptide - Product Information

Primary Accession Q96RK4

BBS4 Antibody (N-term) Blocking peptide - Additional Information

Gene ID 585

Other Names
Bardet-Biedl syndrome 4 protein, BBS4

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

BBS4 Antibody (N-term) Blocking peptide - Protein Information

Name BBS4

Function
The BBSome complex is thought to function as a coat complex required for sorting of specific membrane proteins to the primary cilia. The BBSome complex is required for ciliogenesis but is dispensable for centriolar satellite function. This ciliogenic function is mediated in part by the Rab8 GDP/GTP exchange factor, which localizes to the basal body and contacts the BBSome. Rab8(GTP) enters the primary cilium and promotes extension of the ciliary membrane. Firstly the BBSome associates with the ciliary membrane and binds to RAB3IP/Rabin8, the guanosyl exchange factor (GEF) for Rab8 and then the Rab8-GTP localizes to the cilium and promotes docking and fusion of carrier vesicles to the base of the ciliary membrane. The BBSome complex, together with the LTZL1, controls SMO ciliary trafficking and contributes to the sonic hedgehog (SHH) pathway regulation. Required for proper BBSome complex assembly and its ciliary localization. Required for microtubule anchoring at the centrosome but not for microtubule nucleation. May be required for the dynein-mediated transport of pericentriolar proteins to the centrosome.

Cellular Location
Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cell projection, cilium membrane. Cytoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriolar satellite. Cell projection, cilium, flagellum {ECO:0000250|UniProtKB:Q8C1Z7}. Cell projection, cilium {ECO:0000250|UniProtKB:Q8C1Z7}. Note=Localizes to the pericentriolar

material. Centrosomal localization requires dynein (By similarity) Localizes to the connecting cilium of photoreceptor cells (By similarity). {ECO:0000250|UniProtKB:Q8C1Z7}

Tissue Location
Ubiquitously expressed. The highest level of expression is found in the kidney

BBS4 Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

BBS4 Antibody (N-term) Blocking peptide - Images

BBS4 Antibody (N-term) Blocking peptide - Background

This gene is a member of the Bardet-Biedl syndrome (BBS)gene family. Bardet-Biedl syndrome is an autosomal recessivedisorder characterized by severe pigmentary retinopathy, obesity,polydactyly, renal malformation and mental retardation. Theproteins encoded by BBS gene family members are structurallydiverse. The similar phenotypes exhibited by mutations in BBS genefamily members are likely due to the protein's shared roles incilia formation and function. Many BBS proteins localize to thebasal bodies, ciliary axonemes, and pericentriolar regions ofcells. BBS proteins may also be involved in intracellulartrafficking via microtubule-related transport. The protein encodedby this gene has sequence similarity to O-linkedN-acetylglucosamine (O-GlcNAc) transferases in plants andarchaebacteria and in human forms a multi-protein 'BBSome' complexwith six other BBS proteins. Alternative splice variants have beendescribed but their predicted protein products have not beenexperimentally verified.

BBS4 Antibody (N-term) Blocking peptide - References

Olson, J.E., et al. Breast Cancer Res. Treat. (2010) In press :Rose, J. Phd, et al. Mol. Med. (2010) In press :Chung, W.K., et al. Hum. Hered. 67(3):193-205(2009)Shah, A.S., et al. Proc. Natl. Acad. Sci. U.S.A. 105(9):3380-3385(2008)Hoskins, B.E., et al. Hum. Mutat. 22(2):151-157(2003)