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Cenexin1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54248

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q5BJF6
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	95401
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Cenexin1
Epitope Specificity	1-100/829
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm, cytoskeleton, centrosome. Cell projection, cilium. Cytoplasm, cytoskeleton, centrosome, centriole. Cytoplasm, cytoskeleton, spindle pole. Note=Localized at the microtubule organizing centers in interphase and spindle poles in mitosis. Localized at the distal/subdistal appendages of mother centrioles.
SIMILARITY	Belongs to the ODF2 family.
SUBUNIT	Self-associates. Associates with microtubules and forms a fibrillar structure partially linked to the microtubule network. Interacts via its C-terminus with PLK1. Interacts with ODF1.
Post-translational modifications	Tyrosine phosphorylated.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Cenexin1 is an isoform of ODF2, that unlike ODF2 is present in several somatic cell types. Cenexin1 acts as a general scaffold protein that is specifically localised to the distal/subdistal appendages of mother centrioles. Cenexin1 is required for proper localization of Plk1 to the centrosomes. This centrosomal localization of Plk1 is required for proper microtubule function. Cenexin1 recruits Plk1 via a C-terminal extension of cenexin1 that is not present in ODF2. Cenexin1 is required for proper mitotic progression; depletion of Cenexin1 ultimately leads to chromosome missegregation and apoptosis. The ODF2 (outer dense fiber 2) gene encodes both ODF2 and Cenexin1, which have very different functions. ODF2 is a major component of sperm tail outer dense fibers (ODFs). ODFs are filamentous structures located on the outside of the axoneme in the midpiece and principal piece of the mammalian sperm tail. They may help to maintain the passive elastic structures and elastic recoil of the sperm tail, and may also modulate sperm motility.

Additional Information

Gene ID	4957
Other Names	Outer dense fiber protein 2, Cenexin, Outer dense fiber of sperm tails protein 2, ODF2
Target/Specificity	Testis-specific (at protein level). Highly expressed in cytoplasm of step 2 round spermatids. Detected in the middle piece and extends to about half the principal piece of the sperm tails.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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	ODF2
Function	Seems to be a major component of sperm tail outer dense fibers (ODF). ODFs are filamentous structures located on the outside of the axoneme in the midpiece and principal piece of the mammalian sperm tail and may help to maintain the passive elastic structures and elastic recoil of the sperm tail. May have a modulating influence on sperm motility. Functions as a general scaffold protein that is specifically localized at the distal/subdistal appendages of mother centrioles. Component of the centrosome matrix required for the localization of PLK1 and NIN to the centrosomes. Required for the formation and/or maintenance of normal CETN1 assembly.
Cellular Location	Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cell projection, cilium {ECO:0000250|UniProtKB:A3KGV1}. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole Cytoplasm, cytoskeleton, spindle pole {ECO:0000250|UniProtKB:A3KGV1} Cell projection, cilium, flagellum {ECO:0000250|UniProtKB:A3KGV1} Note=Localized at the microtubule organizing centers in interphase and spindle poles in mitosis. Localized at the distal/subdistal appendages of mother centrioles. {ECO:0000250|UniProtKB:A3KGV1}
Tissue Location	Testis-specific (at protein level). Highly expressed in cytoplasm of step 2 round spermatids. Detected in the middle piece and extends to about half the principal piece of the sperm tails.