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Anti-Cenexin-1 (RABBIT) Antibody
Cenexin-1 Antibody
Catalog # ASR4465

Specification

Anti-Cenexin-1 (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Human**
Reactivity	**Mouse**
Clonality	**Polyclonal**
Application	**WB, E, I, LCI**
Application Note	**Anti-Cenexin-1 purified antibody has been tested for use in ELISA and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 93 kDa in size corresponding to Cenexin-1 by western blotting in the appropriate cell lysate or extract.**
Physical State	**Liquid (sterile filtered)**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**This protein-A purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a truncated recombinant protein hCenexin1.**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-Cenexin-1 (RABBIT) Antibody - Additional Information

Gene ID 4957

Other Names
4957

Purity
This antibody was purified from monospecific antiserum by protein-A purified immunoaffinity chromatography. It is directed against, and shows specific reactivity for, human Cenexin-1 protein. A BLAST analysis was used to suggest cross-reactivity with Cenexin-1 from human, chimpanzee, mouse, rat, bovine sources based on 100% homology with the immunizing sequence. Reactivity with Cenexin-1 protein from other sources has not been determined.

Storage Condition
Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Cenexin-1 (RABBIT) Antibody - 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.

Anti-Cenexin-1 (RABBIT) Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Cenexin-1 (RABBIT) Antibody - Images

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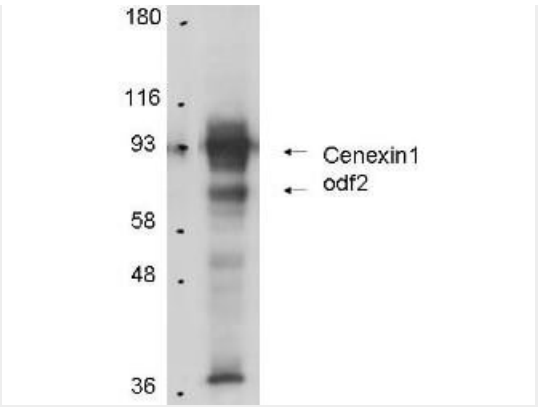

Anti-Cenexin-1 in Western Blot using Rockland Immunochemical's Protein A Purified Anti-Cenexin-1 antibody shows detection of Cenexin-1 in total cell lysates from mouse F9 embryonic carcinoma cells. Arrowheads show detection of Cenexin-1 at approximately 93kDa and Outer dense fiber protein 2 (ODF2) at approximately 70kDa. In personal communication with K. Lee, CCR-NCI, Bethesda, MD.

Anti-Cenexin-1 (RABBIT) Antibody - Background

This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. Cenexin-1 (ODF84) and cenexin-2 are splicing variants that are expressed from the same genetic locus Outer Dense Fiber protein 2 (ODF2) . Cenexin-1 and cenexin-2, regarded as centriolar proteins. Cenexin-1, a 93-kD variant of ODF2, is the major form of cennexin expressed in various somatic cells and tissues and associates with centrosomes. Cenexin-1 contains a unique C-terminal extension that appears to play a critical role in recruiting mitotic regulators such as polo-like kinase 1. In contrast, ODF2, a 70-kDa protein, is a major component of sperm tail cytoskeleton and abundantly expressed in testis. Additional evidence suggests that both of these proteins play important role in primary cilia formation. The fibers function in maintaining the elastic structure and recoil of the sperm tail as well as in protecting the tail from shear forces during epididymal transport and ejaculation. Defects in the outer dense fibers lead to abnormal sperm morphology and infertility. Cenexin-1 is one of the major outer dense fiber proteins. Multiple protein isoforms are encoded by transcript variants of the cenexin gene; however, not all isoforms and variants have been fully described.