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DKC1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5479C

Specification

DKC1 Antibody (Center) - Product Information

Application	**IF, IHC-P, WB,E**
Primary Accession	O60832
Other Accession	Q9ESX5, NP_001354.1
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**57674**
Antigen Region	**185-213**

DKC1 Antibody (Center) - Additional Information

Gene ID 1736

Other Names
H/ACA ribonucleoprotein complex subunit 4, 5499-, CBF5 homolog, Dyskerin, Nopp140-associated protein of 57 kDa, Nucleolar protein NAP57, Nucleolar protein family A member 4, snoRNP protein DKC1, DKC1, NOLA4

Target/Specificity
This DKC1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 185-213 amino acids from the Central region of human DKC1.

Dilution
IF~~1:10~50
IHC-P~~1:50~100
WB~~1:1000
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
DKC1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

DKC1 Antibody (Center) - Protein Information

Name DKC1 (HGNC:2890)

Synonyms NOLA4

Function [Isoform 1]: Catalytic subunit of H/ACA small nucleolar ribonucleoprotein (H/ACA snoRNP) complex, which catalyzes pseudouridylation of rRNA (PubMed:25219674, PubMed:32554502). This involves the isomerization of uridine such that the ribose is subsequently attached to C5, instead of the normal N1 (PubMed:25219674). Each rRNA can contain up to 100 pseudouridine ('psi') residues, which may serve to stabilize the conformation of rRNAs. Required for ribosome biogenesis and telomere maintenance (PubMed:19179534, PubMed:25219674). Also required for correct processing or intranuclear trafficking of TERC, the RNA component of the telomerase reverse transcriptase (TERT) holoenzyme (PubMed:19179534).

Cellular Location
[Isoform 1]: Nucleus, nucleolus. Nucleus, Cajal body {ECO:0000250|UniProtKB:P40615}

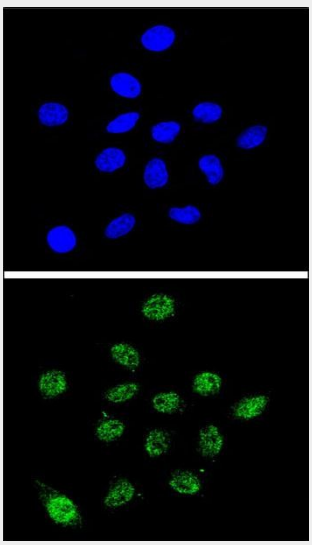
Tissue Location
Ubiquitously expressed.

DKC1 Antibody (Center) - 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

DKC1 Antibody (Center) - Images



Confocal immunofluorescent analysis of DKC1 Antibody (Center)(Cat. #AP5479c) with 293 cell followed by Alexa Fluor® 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

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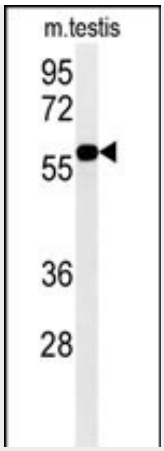
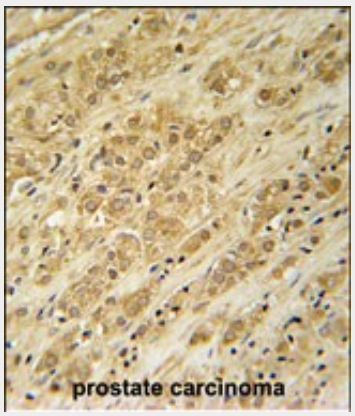


DKC1 Antibody (Center) (Cat.#AP5479c) western blot analysis in mouse testis tissue lysates (35ug/lane).This demonstrates the DKC1 antibody detected DKC1 protein (arrow).



DKC1 Antibody (Center) (Cat. #AP5479c) immunohistochemistry analysis in formalin fixed and paraffin embedded human prostate carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the DKC1 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

DKC1 Antibody (Center) - Background

DKC1 is a member of the H/ACA snoRNPs (small nucleolar ribonucleoproteins) gene family. snoRNPs are involved in various aspects of rRNA processing and modification and have been classified into two families: C/D and H/ACA. The H/ACA snoRNPs also include the NOLA1, 2 and 3 proteins. The protein encoded by this gene and the three NOLA proteins localize to the dense fibrillar components of nucleoli and to coiled (Cajal) bodies in the nucleus. Both 18S rRNA production and rRNA pseudouridylation are impaired if any one of the four proteins is depleted. These four H/ACA snoRNP proteins are also components of the telomerase complex. The protein encoded by this gene is related to the Saccharomyces cerevisiae Cbf5p and Drosophila melanogaster Nop60B proteins. The gene lies in a tail-to-tail orientation with the palmitoylated erythrocyte membrane protein gene and is transcribed in a telomere to centromere direction. Both nucleotide substitutions and single trinucleotide repeat polymorphisms have been found in this gene. Mutations in this gene cause X-linked dyskeratosis congenita, a disease resulting in reticulate skin pigmentation, mucosal leukoplakia, nail dystrophy, and progressive bone marrow failure in

most cases.

DKC1 Antibody (Center) - References

Rostamiani, K., et al. Blood Cells Mol. Dis. 44 (2), 88 (2010) :
Grozdanov, P.N., et al. Hum. Mol. Genet. 18(23):4546-4551(2009)
Ashbridge, B., et al. Biochemistry 48(46):10858-10865(2009)
Sieron, P., et al. Br. J. Cancer 101(8):1410-1416(2009)