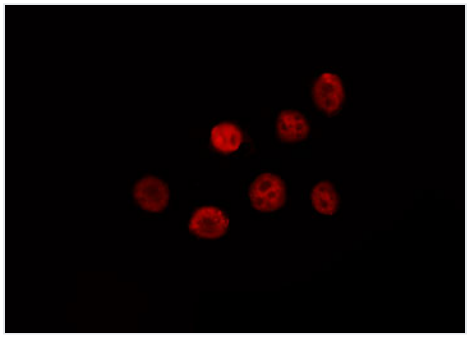
DKC1 Antibody – Rabbit Polyclonal

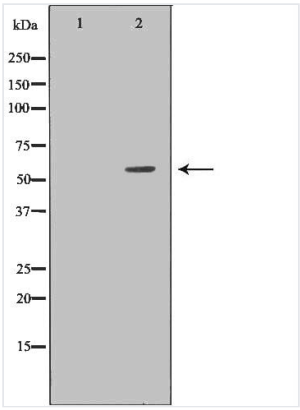
PRODUCT OVERVIEW

Product Name	DKC1, Polyclonal Antibody
Full Product Name	DKC1 Antibody
Product Gene Name	anti-DKC1 antibody
Product Synonym Names	CBF5; CBF5 homolog; Cbf5p homolog; DKC 1; DKC; Dkc1; DKC1_HUMAN; DKCX; Dyskeratosis congenita 1; Dyskeratosis congenita 1 dyskerin; Dyskerin; H/ACA ribonucleoprotein complex subunit 4; NAP 57; NAP57; NOLA 4; NOLA4; Nopp140 associated protein of 57 kDa; Nopp140-associated protein of 57 kDa; Nucleolar protein family A member 4; Nucleolar protein NAP57; snoRNP protein DKC1; XAP 101; XAP101
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Concentration	1mg/ml (lot specific)
Specificity	DKC1 antibody detects endogenous levels of total DKC1
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.
Antibody/Peptide Pairs	DKC1 peptide (MBS9626038) is used for blocking the activity of DKC1 antibody (MBS9607322)
Molecular Weight	Observed: 58 kDa Predicted: 58 kDa
3D Structure	ModBase 3D Structure for O60832
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Immunogen	A synthesized peptide derived from human DKC1
Subcellular Location	Cytoplasm and Nucleus > Nucleolus. Nucleus > Cajal body. Also localized to cajal bodies.
Tissue Specificity	Ubiquitously expressed.
Conjugation	Unconjugated
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-DKC1 antibody	Western Blot (WB), Immunohistochemisty (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC), ELISA (EIA)
Application Notes for anti-DKC1 antibody	WB: 1:500-1:2000 IHC: 1:50-1:200 IF/ICC: 1:100-1:500

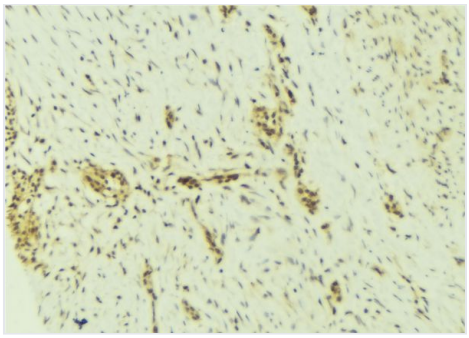
Related Product Information for anti-DKC1 antibody	Description: This gene is a member of the H/ACA snoRNPs (small nucleolar ribonucleoproteins) gene family. snoRNPs are involved in various aspects of rRNA processing and modification and have been classified into two families: C/D and H/ACA. The H/ACA 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. Mutations in this gene also cause Hoyeraal-Hreidarsson syndrome, which is a more severe form of dyskeratosis congenita. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2008] Function: Isoform 1: Required for ribosome biogenesis and telomere maintenance. Probable catalytic subunit of H/ACA small nucleolar ribonucleoprotein (H/ACA snoRNP) complex, which catalyzes pseudouridylation of rRNA. This involves the isomerization of uridine such that the ribose is subsequently attached to C5, instead of the normal N1. Each rRNA can contain up to 100 pseudouridine ('psi') residues, which may serve to stabilize the conformation of rRNAs. Also required for correct processing or intranuclear trafficking of TERC, the RNA component of the telomerase reverse transcriptase (TERT) holoenzyme. Subunit Structure: Part of the H/ACA small nucleolar ribonucleoprotein (H/ACA snoRNP) complex, which contains NHP2/NOLA2, GAR1/NOLA1, NOP10/NOLA3, and DKC1/NOLA4, which is presumed to be the catalytic subunit. The complex contains a stable core formed by binding of one or two NOP10-DKC1 heterodimers to NHP2; GAR1 subsequently binds to this core via DKC1. The complex binds a box H/ACA small nucleolar RNA (snoRNA), which may target the specific site of modification within the RNA substrate. During assembly, the complex contains NAF1 instead of GAR1/NOLA1. The complex also interacts with TERC, which contains a 3'-terminal domain related to the box H/ACA snoRNAs. Specific interactions with snoRNAs or TERC are mediated by GAR1 and NHP2. Associates with NOLC1/NOPP140. H/ACA snoRNPs interact with the SMN complex, consisting of SMN1 or SMN2, GEMIN2/SIP1, DDX20/GEMIN3, and GEMIN4. This is mediated by interaction between GAR1 and SMN1 or SMN2. The SMN complex may be required for correct assembly of the H/ACA snoRNP complex. Component of the telomerase holoenzyme complex at least composed of TERT, DKC1, WRAP53/TCAB1, NOP10, NHP2, GAR1, TEP1, EST1A, POT1 and a telomerase RNA template component (TERC). Interacts with SHQ1; this interaction may lead to the stabilization of DKC1, from the time of its synthesis until its association with NOP10, NHP2, and NAF1 at the nascent H/ACA RNA. Similarity: Belongs to the pseudouridine synthase TruB family.
Other Notes	Small volumes of anti-DKC1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for DKC1 purchase	MBS9607322 is an antibody targeting DKC1. Also known as DKC1 Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



Immunofluorescence (IF) of anti-DKC1 antibody
MBS9607322 staining Hela by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



Western Blot (WB) of anti-DKC1 antibody
Western blot analysis of Hela whole cell lysates, using DKC1 Antibody. The lane on the left is treated with the antigen-specific peptide.



Immunohistochemistry (IHC) of anti-DKC1 antibody
MBS9607322 at 1/100 staining Human breast cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DKC1. It may not necessarily be applicable to this product.

NCBI GI #	215599015
NCBI GeneID	1736
NCBI Accession #	NP_001135935.1
UniProt Primary Accession #	O60832
UniProt Secondary Accession #	O43845; Q96G67; Q9Y505; F5BSB3
UniProt Related Accession #	O60832
GenBank Nucleotide #	NM_001142463.2
NCBI Official Full Name	H/ACA ribonucleoprotein complex subunit DKC1 isoform 2
NCBI Official Synonym Full Names	dyskerin pseudouridine synthase 1
NCBI Official Symbol	DKC1
NCBI Official Synonym Symbols	DKC; CBF5; DKCX; NAP57; NOLA4; XAP101
UniProt Protein Name	H/ACA ribonucleoprotein complex subunit DKC1
UniProt Synonym Protein Names	CBF5 homolog; Dyskerin; Nopp140-associated protein of 57 kDa; Nucleolar protein NAP57; Nucleolar protein family A member 4; snoRNP protein DKC1
UniProt Gene Name	DKC1
NCBI Protein Information	H/ACA ribonucleoprotein complex subunit DKC1
NCBI Summary for DKC1	This gene functions in two distinct complexes. It plays an active role in telomerase stabilization and maintenance, as well as recognition of snoRNAs containing H/ACA sequences which provides stability during biogenesis and assembly into H/ACA small nucleolar RNA ribonucleoproteins (snoRNPs). This gene is highly conserved and widely expressed, and may play additional roles in nucleo-cytoplasmic shuttling, DNA damage response, and cell adhesion. Mutations have been associated with X-linked dyskeratosis congenita. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]
UniProt Comments for DKC1	Isoform 1: Catalytic subunit of H/ACA small nucleolar ribonucleoprotein (H/ACA snoRNP) complex, which catalyzes pseudouridylation of rRNA (PubMed:25219674). 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).
Research Articles on DKC1	**1.** The expression of DKC1 was upregulated in ccRCC.

Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-mouse-rat-antibody/dkc1/9607322