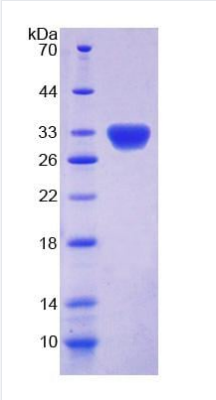
Dyskerin (DKC) Recombinant Protein

PRODUCT OVERVIEW

Product Name	Dyskerin (DKC), Recombinant Protein
Full Product Name	Recombinant Dyskerin (DKC)
Product Gene Name	DKC recombinant protein
Product Synonym Names	DKC1; NAP57; NOLA4; NAP57; Dyskeratosis Congenita 1; H/ACA Ribonucleoprotein Complex Subunit 4; Nopp140-associated protein of 57 kDa; Nucleolar protein family A member 4
Sequence	KRL VMKDSAVNAI CYGAKIMLPG LLRYEDGIEV NQEVVVITTK GEAVCVAIAL MTTAVISTCD HGVVAKIKRV IMERDTYPRK WGLGPKASQK KQLIKQGLLD KHGRPTDGTP ASWTRDYVDY SDSSKKATAA EATPGPGVTA DAASIVKRKR DSDSDADEAT PTTTPRVKKE KKKKKEKADG GEEAAEDGDG DATRKKKKKK ARAAEELSG
Host	E Coli
Form/Format	Supplied as lyophilized form in 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5% trehalose, and preservative.
Purity/Purification	> 95%
Preparation and Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Stability Test: The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is lessthan 5% within the expiration date under appropriate storage condition.
Matching Pairs	Unconjugated Antibody: DKC (MBS2032874) Immunogen: DKC (MBS2033472)
Matching Pairs	APC-CY7 Conjugated Antibody: DKC (MBS2065721) Immunogen: DKC (MBS2033472)
Matching Pairs	PE Conjugated Antibody: DKC (MBS2065722) Immunogen: DKC (MBS2033472)
Matching Pairs	APC Conjugated Antibody: DKC (MBS2065723) Immunogen: DKC (MBS2033472)
Matching Pairs	Cy3 Conjugated Antibody: DKC (MBS2065724) Immunogen: DKC (MBS2033472)
Matching Pairs	FITC Conjugated Antibody: DKC (MBS2065725) Immunogen: DKC (MBS2033472)
Matching Pairs	HRP Conjugated Antibody: DKC (MBS2065726) Immunogen: DKC (MBS2033472)
Matching Pairs	Biotin Conjugated Antibody: DKC (MBS2094523) Immunogen: DKC (MBS2033472)
Molecular Weight	47,603 Da
OMIM	305000
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Predicted Molecular Mass	26.6kDa

Usage	Reconstitute in sterile PBS, pH7.2-pH7.4.
Endotoxin Level	<1.0EU per 1 ug (determined by the LAL method)
Expression System	Prokaryotic expression
Fragment	Lys298~Gly509
Organism Species	Rat
Tag	two N-terminal Tags, His-tag and T7-tag
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for DKC recombinant protein	SDS-PAGE, Western (WB), ELISA (EIA), Immunoprecipitation (IP).
Related Product Information for DKC recombinant protein	MBS2033472 is a recombinant protein targeting DKC. Also known as Recombinant Dyskerin (DKC). Host: E Coli.
Other Notes	Small volumes of DKC recombinant protein 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.



SDS-Page of DKC recombinant protein

ADDITIONAL DETAILS

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

NCBI GI #	3873221
NCBI GeneID	1736
NCBI Accession #	AAD11815.1
UniProt Related Accession #	O60832
NCBI Official Full Name	dyskerin
NCBI Official Synonym Full Names	dyskeratosis congenita 1, dyskerin
NCBI Official Symbol	DKC1
NCBI Official Synonym Symbols	DKC; CBF5; DKCX; NAP57; NOLA4; XAP101
UniProt Protein Name	H/ACA ribonucleoprotein complex subunit 4
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
Protein Family	H/ACA ribonucleoprotein complex
UniProt Gene Name	DKC1

UniProt Synonym Gene Names	NOLA4
NCBI Protein Information	H/ACA ribonucleoprotein complex subunit 4
NCBI Summary for DKC	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 DKC	dyskerin: 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. Defects in DKC1 are a cause of dyskeratosis congenita X-linked recessive (XDKC). XDKC is a rare, progressive bone marrow failure syndrome characterized by the triad of reticulated skin hyperpigmentation, nail dystrophy, and mucosal leukoplakia. Early mortality is often associated with bone marrow failure, infections, fatal pulmonary complications, or malignancy. Defects in DKC1 are the cause of Hoyeraal-Hreidarsson syndrome (HHS). HHS is a multisystem disorder affecting males and is characterized by aplastic anemia, immunodeficiency, microcephaly, cerebellar hypoplasia, and growth retardation. Belongs to the pseudouridine synthase TruB family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: EC 5.4.99.-; RNA processing; Nucleolus; Lyase; Isomerase; RNA-binding Chromosomal Location of Human Ortholog: Xq28 Cellular Component: cytoplasm; nucleolus; nucleoplasm; nucleus; telomerase holoenzyme complex Molecular Function: protein binding; pseudouridine synthase activity; RNA binding; telomerase activity Biological Process: box H/ACA snoRNA 3'-end processing; cell proliferation; positive regulation of telomerase activity; positive regulation of telomere maintenance via telomerase; RNA processing; rRNA processing; rRNA pseudouridine synthesis; snRNA pseudouridine synthesis; telomere maintenance; telomere maintenance via telomerase Disease: Dyskeratosis Congenita, X-linked
Research Articles on DKC	**1.** DC is genetically heterogeneous. X-linked DC is the commonest form of the disease, accounting for approximately 30% of cases, and is caused by mutations of the DKC1 gene encoding the dyskerin protein.
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Online datasheet: https://www.mybiosource.com/dkc-recombinant-protein/dyskerin/2033472