

DKC1 Antibody / Dyskerin (FY13179)

Catalog No.	Formulation	Size
FY13179	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	O60832
Applications	Western Blot: 0.25-0.5ug/ml Immunohistochemistry: 2-5ug/ml Immunocytochemistry/Immunofluorescence: 5ug/ml Flow Cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This DKC1 antibody is available for research use only.

Description

DKC1 antibody detects Dyskerin, a nucleolar pseudouridine synthase essential for ribosomal RNA modification, telomerase stability, and small nucleolar RNP biogenesis. The UniProt recommended name is Dyskerin (DKC1). This enzyme catalyzes the isomerization of uridine to pseudouridine in rRNA and snRNA, ensuring ribosome maturation and translation fidelity.

Functionally, DKC1 antibody identifies a 514-amino-acid protein localized in the nucleolus and Cajal bodies. DKC1 associates with NOP10, NHP2, and GAR1 to form the H/ACA ribonucleoprotein complex that modifies rRNA and snRNA. It also binds the telomerase RNA component (TERC), stabilizing the telomerase complex for telomere elongation.

The DKC1 gene is located on chromosome Xq28 and is ubiquitously expressed in dividing and metabolically active cells. Dyskerin function is vital for maintaining ribosome synthesis, RNA quality control, and telomere homeostasis. Its activity directly influences cell growth and chromosomal stability.

Pathologically, mutations in DKC1 cause X-linked dyskeratosis congenita, a rare disorder characterized by bone marrow failure, premature aging, and cancer predisposition. Reduced DKC1 function leads to defective rRNA modification, impaired telomerase activity, and genomic instability. Research using DKC1 antibody supports studies in RNA processing, telomere biology, and genetic diseases.

DKC1 antibody is validated for western blotting, immunofluorescence, and immunohistochemistry to detect pseudouridine synthases and nucleolar proteins. NSJ Bioreagents provides DKC1 antibody reagents optimized for studies in ribosome biogenesis, telomerase function, and RNA modification.

Structurally, Dyskerin features a TruB-like catalytic domain with conserved aspartate essential for pseudouridylation activity, and a nuclear localization signal directing nucleolar import. This antibody aids in elucidating DKC1Â's role in ribonucleoprotein assembly and RNA modification fidelity.

Application Notes

Optimal dilution of the DKC1 antibody should be determined by the researcher.

Immunogen

E.coli-derived human DKC1 recombinant protein (Position: R19-R447) was used as the immunogen for the DKC1 antibody.

Storage

After reconstitution, the DKC1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.