SANTA CRUZ BIOTECHNOLOGY, INC.

Dyskerin (C-11): sc-365731

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Dyskerin (NAP57) associates with the chaperone protein Nopp140 and forms a small ribonucleoprotein particle with GAR1 (NOLA1), NHP2 (NOLA2) and Nop10 for the isomerization of uridine to pseudouridine. GAR1, NHP2 and Dyskerin localize to the dense fibrillar component of the nucleolus and in nuclear Cajal bodies. The Dyskerin gene maps to chromosome Xq28. Missense mutations in the Dyskerin gene interfere with normal nuclear localization of Dyskerin and cause Dyskeratosis congenita (DKC). DKC is a rare, X-linked bone marrow disorder characterized by cutaneous hyperpigmentation, dystrophy of the nails, atrophy of the testicles and leukoplakia of the oral mucosa. The GAR1 gene maps to chromosome 4q25. The NHP2 gene maps to chromosome 5q35.3 and encodes a 155-amino acid protein.

CHROMOSOMAL LOCATION

Genetic locus: DKC1 (human) mapping to Xq28; Dkc1 (mouse) mapping to X A7.3.

SOURCE

Dyskerin (C-11) is a mouse monoclonal antibody raised against amino acids 171-470 mapping within an internal region of Dyskerin of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-365731 X, 200 µg/0.1 ml.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Dyskerin (C-11) is recommended for detection of Dyskerin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Dyskerin siRNA (h): sc-38254, Dyskerin siRNA (m): sc-38255, Dyskerin shRNA Plasmid (h): sc-38254-SH, Dyskerin shRNA Plasmid (m): sc-38255-SH, Dyskerin shRNA (h) Lentiviral Particles: sc-38254-V and Dyskerin shRNA (m) Lentiviral Particles: sc-38255-V.

Dyskerin (C-11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

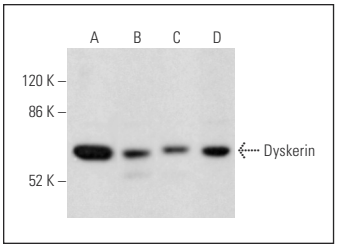
Molecular Weight of Dyskerin: 58 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Hep G2 cell lysate: sc-2227 or SW480 cell lysate: sc-2219.

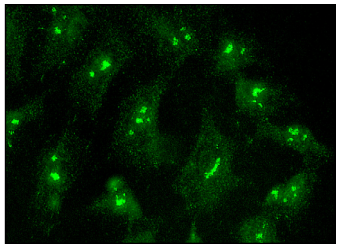
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Dyskerin (C-11): sc-365731. Western blot analysis of Dyskerin expression in HeLa nuclear extract (**A**) and HCT-116 (**B**), Hep G2 (**C**) and SW480 (**D**) whole cell lysates.



Dyskerin (C-11): sc-365731. Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar localization.

SELECT PRODUCT CITATIONS

1. Bedal, K.B., et al. 2014. Collagen XVI induces expression of MMP9 via modulation of AP-1 transcription factors and facilitates invasion of oral squamous cell carcinoma. PLoS ONE 9: e86777.
2. Steinbusch, M.M.F., et al. 2022. Adaptation of the protein translational apparatus during ATDC5 chondrogenic differentiation. Noncoding RNA Res. 7: 55-65.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.