SANTA CRUZ BIOTECHNOLOGY, INC.

WDR33 (D-1): sc-374466

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

WD-repeats are motifs that are found in a variety of proteins and are char acterized by a conserved core of 40-60 amino acids that commonly form a tertiary propeller structure. While proteins that contain WD-repeats participate in a wide range of cellular functions, they are generally involved in regulatory mechanisms concerning chromatin assembly, cell cycle control, signal transduction, RNA processing, apoptosis and vesicular trafficking. WDR33 (WD repeat domain 33), also known as WDC146 or NET14, is a 1,336 amino acid nuclear protein that is highly expressed in testis. Suggested to play a role in DNA recombination and cytodifferentiation, WDR33 contains one collagen-like domain and seven WD repeats, and is encoded by a gene located on human chromosome 2. A number of genetic diseases are linked to genes on chromosome 2 including Harlequin icthyosis, sitosterolemia and Alström syndrome.

CHROMOSOMAL LOCATION

Genetic locus: WDR33 (human) mapping to 2q14.3; Wdr33 (mouse) mapping to 18 B1.

SOURCE

WDR33 (D-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 15-41 at the N-terminus of WDR33 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-374466 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

WDR33 (D-1) is recommended for detection of WDR33 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).

WDR33 (D-1) is also recommended for detection of WDR33 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for WDR33 siRNA (h): sc-94735, WDR33 siRNA (m): sc-155275, WDR33 shRNA Plasmid (h): sc-94735-SH, WDR33 shRNA Plasmid (m): sc-155275-SH, WDR33 shRNA (h) Lentiviral Particles: sc-94735-V and WDR33 shRNA (m) Lentiviral Particles: sc-155275-V.

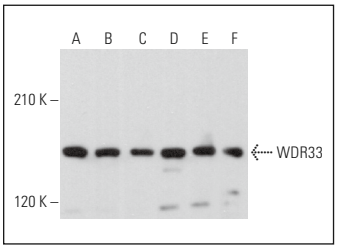
Molecular Weight of WDR33: 146 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181, F9 cell lysate: sc-2245 or Ramos cell lysate: sc-2216.

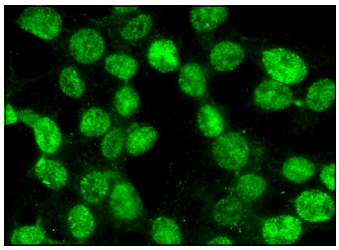
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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



WDR33 (D-1): sc-374466. Western blot analysis of WDR33 expression in Ramos (**A**), Caco-2 (**B**), NTERA-2 cl.D1 (**C**), F9 (**D**) and KNRK (**E**) whole cell lysates and rat testis tissue extract (**F**).



WDR33 (D-1): sc-374466. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Ashraf, S., et al. 2019. The polyadenylation inhibitor cordycepin reduces pain, inflammation and joint pathology in rodent models of osteoarthritis. Sci. Rep. 9: 4696.
2. Mattenberger, F., et al. 2021. Globally defining the effects of mutations in a picornavirus capsid. Elife 10: e64256.
3. Fütterer, A., et al. 2021. Impaired stem cell differentiation and somatic cell reprogramming in DIDO3 mutants with altered RNA processing and increased R-loop levels. Cell Death Dis. 12: 637.
4. Liu, H., et al. 2022. Targeting the mRNA endonuclease CPSF73 inhibits breast cancer cell migration, invasion, and self-renewal. iScience 25: 104804.
5. Mukherjee, S., et al. 2023. Macrophage differentiation is marked by increased abundance of the mRNA 3' end processing machinery, altered poly(A) site usage, and sensitivity to the level of CstF64. Front. Immunol. 14: 1091403.

STORAGE

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

PROTOCOLS

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