SANTA CRUZ BIOTECHNOLOGY, INC.

WDR74 (E-6): sc-393822

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

WD-repeats are motifs that are found in a variety of proteins and are characterized 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. WDR74 (WD repeat domain 74), also known as NOP seven-associated protein 1 (NSA1), is a 385 amino acid protein that localizes to the nucleolus and contains six WD repeats. Existing as two alternatively spliced isoforms, the gene encoding WDR74 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome and Niemann-Pick disease are associated with defects in genes that maps to chromosome 11.

REFERENCES

1. van der Voorn, L. and Ploegh, H.L. 1992. The WD-40 repeat. FEBS Lett. 307: 131-134.
2. Neer, E.J., et al. 1994. The ancient regulatory-protein family of WD-repeat proteins. Nature 371: 297-300.
3. Garcia-Higuera, I., et al. 1996. Folding of proteins with WD-repeats: comparison of six members of the WD-repeat superfamily to the G protein β subunit. Biochemistry 35: 13985-13994.
4. Smith, T.F., et al. 1999. The WD repeat: a common architecture for diverse functions. Trends Biochem. Sci. 24: 181-185.

CHROMOSOMAL LOCATION

Genetic locus: WDR74 (human) mapping to 11q12.3; Wdr74 (mouse) mapping to 19 A.

SOURCE

WDR74 (E-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 155-188 within an internal region of WDR74 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

WDR74 (E-6) is available conjugated to agarose (sc-393822 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393822 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393822 PE), fluorescein (sc-393822 FITC), Alexa Fluor® 488 (sc-393822 AF488), Alexa Fluor® 546 (sc-393822 AF546), Alexa Fluor® 594 (sc-393822 AF594) or Alexa Fluor® 647 (sc-393822 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393822 AF680) or Alexa Fluor® 790 (sc-393822 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393822 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

WDR74 (E-6) is recommended for detection of WDR74 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).

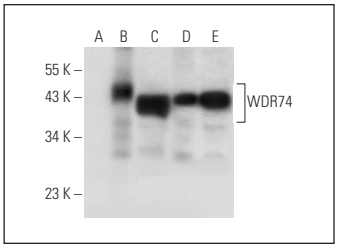
WDR74 (E-6) is also recommended for detection of WDR74 in additional species, including canine.

Suitable for use as control antibody for WDR74 siRNA (h): sc-96959, WDR74 siRNA (m): sc-155314, WDR74 shRNA Plasmid (h): sc-96959-SH, WDR74 shRNA Plasmid (m): sc-155314-SH, WDR74 shRNA (h) Lentiviral Particles: sc-96959-V and WDR74 shRNA (m) Lentiviral Particles: sc-155314-V.

Molecular Weight of WDR74: 42 kDa.

Positive Controls: WDR74 (m): 293T Lysate: sc-124636, IMR-32 cell lysate: sc-2409 or HeLa nuclear extract: sc-2120.

DATA



WDR74 (E-6): sc-393822. Western blot analysis of WDR74 expression in non-transfected 293T: sc-117752 (**A**), mouse WDR74 transfected 293T: sc-124636 (**B**) and IMR-32 (**C**) whole cell lysates and K-562 (**D**) and HeLa (**E**) nuclear extracts.

SELECT PRODUCT CITATIONS

1. Yamaga, M., et al. 2019. Metabolism and pharmacokinetics of medium chain fatty acids after oral administration of royal jelly to healthy subjects. RSC Adv. 9: 15392-15401.
2. Wu, X., et al. 2022. A pan-cancer analysis of the oncogenic role of WD repeat domain 74 in multiple tumors. Front. Genet. 13: 860940.

STORAGE

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

RESEARCH USE

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