

WDR78 (E-7): sc-390633

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. WDR78 (WD repeat domain 78) is an 848 amino acid protein that contains six WD repeats and exists as three alternatively spliced isoforms. The gene encoding WDR78 maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome.

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.
5. Li, D. and Roberts, R. 2001. WD-repeat proteins: structure characteristics, biological function, and their involvement in human diseases. *Cell. Mol. Life Sci.* 58: 2085-2097.
6. Koshizuka, Y., et al. 2001. Isolation, characterization, and mapping of the mouse and human WDR8 genes, members of a novel WD-repeat gene family. *Genomics* 72: 252-259.

CHROMOSOMAL LOCATION

Genetic locus: WDR78 (human) mapping to 1p31.3; Wdr78 (mouse) mapping to 4 C6.

SOURCE

WDR78 (E-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 459-482 within an internal region of WDR78 of human origin.

PRODUCT

Each vial contains 200 μ g IgG κ 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-390633 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

WDR78 (E-7) is recommended for detection of WDR78 isoforms of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 WDR78 siRNA (h): sc-78584, WDR78 siRNA (m): sc-155318, WDR78 shRNA Plasmid (h): sc-78584-SH, WDR78 shRNA Plasmid (m): sc-155318-SH, WDR78 shRNA (h) Lentiviral Particles: sc-78584-V and WDR78 shRNA (m) Lentiviral Particles: sc-155318-V.

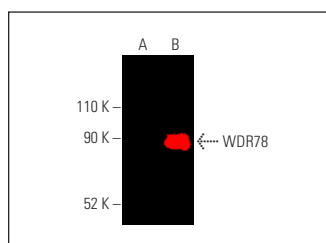
Molecular Weight of WDR78 isoforms: 95/57/63 kDa.

Positive Controls: WDR78 (m2): 293T Lysate: sc-126238.

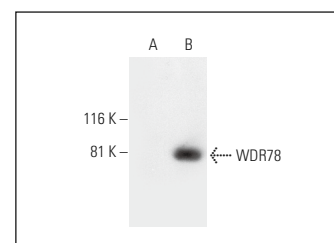
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



WDR78 (E-7): sc-390633. Near-infrared western blot analysis of WDR78 expression in non-transfected: sc-117752 (A) and mouse WDR78 transfected: sc-126238 (B) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG Fc BP-CFL 790: sc-533658.



WDR78 (E-7): sc-390633. Western blot analysis of WDR78 expression in non-transfected: sc-117752 (A) and mouse WDR78 transfected: sc-126238 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Lu, S., et al. 2021. Bi-allelic variants in human WDR63 cause male infertility via abnormal inner dynein arms assembly. *Cell Discov.* 7: 110.
2. Harima, R., et al. 2025. TCTEX1D2 is essential for sperm flagellum formation in mice. *Sci. Rep.* 15: 2413.

RESEARCH USE

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