

DDX36 (B-6): sc-377485

BACKGROUND

DEAD box proteins, characterized by the conserved motif Asp-Glu-Ala-Asp, are putative RNA helicases implicated in several cellular processes involving modifications of RNA secondary structure. Specifically, DEAD box proteins are involved in translation initiation, nuclear and mitochondrial splicing, and ribosome and spliceosome assembly. Based on their distribution patterns, members of this family may be involved in embryogenesis, spermatogenesis, and cellular growth and division. DDX30, DDX35 and DDX36 each contain one helix ATP-binding domain and one helicase C-terminal domain. DDX36 (DEAH box protein 36), also known as MLE-like protein 1 and RNA helicase associated with AU-rich element ARE, is a 1,008 amino acid protein that is expressed in testis and may function in sex development and spermatogenesis. DDX36 plays a role in degradation and deadenylation of mRNAs that contain the consensus ARE sequence element in their 3'-UTR. There are three isoforms of DDX36 that exist as a result of alternative splicing events.

REFERENCES

1. Fu, J.J., et al. 2002. Molecular cloning and characterization of human DDX36 and mouse Ddx36 genes, new members of the DEAD/H box superfamily. *Sheng Wu Hua Xue Yu Sheng Wu Wu Li Xue Bao* 34: 655-661.
2. Fu, J.J., et al. 2003. Expression research for human DDX36 and mouse Ddx36 gene in the adult testis. *Yi Chuan Xue Bao* 30: 201-208.

CHROMOSOMAL LOCATION

Genetic locus: DHX36 (human) mapping to 3q25.2; Dhx36 (mouse) mapping to 3 E1.

SOURCE

DDX36 (B-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 77-111 near the N-terminus of DDX36 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DDX36 (B-6) is available conjugated to agarose (sc-377485 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377485 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377485 PE), fluorescein (sc-377485 FITC), Alexa Fluor® 488 (sc-377485 AF488), Alexa Fluor® 546 (sc-377485 AF546), Alexa Fluor® 594 (sc-377485 AF594) or Alexa Fluor® 647 (sc-377485 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377485 AF680) or Alexa Fluor® 790 (sc-377485 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-377485 P, (100 µg 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

DDX36 (B-6) is recommended for detection of DDX36 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 DDX36 siRNA (h): sc-78053, DDX36 siRNA (m): sc-142933, DDX36 shRNA Plasmid (h): sc-78053-SH, DDX36 shRNA Plasmid (m): sc-142933-SH, DDX36 shRNA (h) Lentiviral Particles: sc-78053-V and DDX36 shRNA (m) Lentiviral Particles: sc-142933-V.

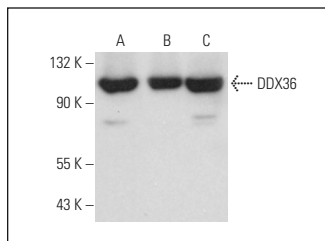
Molecular Weight of DDX36: 115 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, Ramos cell lysate: sc-2216 or F9 cell lysate: sc-2245.

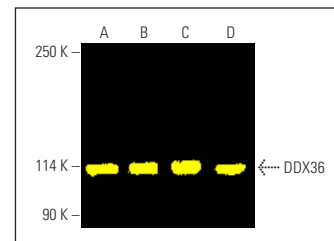
RECOMMENDED SUPPORT REAGENTS

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 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



DDX36 (B-6): sc-377485. Western blot analysis of DDX36 expression in Raji (A), NAMALWA (B) and F9 (C) whole cell lysates.



DDX36 (B-6): sc-377485. Fluorescent western blot analysis of DDX36 expression in Raji (A), Ramos (B), NAMALWA (C) and F9 (D) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG Fc BP-CFL 488: sc-533653.

SELECT PRODUCT CITATIONS

1. Sauer, M., et al. 2019. DHX36 prevents the accumulation of translationally inactive mRNAs with G₄-structures in untranslated regions. *Nat. Commun.* 10: 2421.

RESEARCH USE

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

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