**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 and ribosome/spliceosome assembly. Based on their distribution patterns, some members of this family may be involved in embryogenesis, spermatogenesis, and cellular growth and division. DDX21 (DEAD (Asp-Glu-Ala-Asp) box polypeptide 21), also known as GUA or GURDB, is a 783 amino acid protein that localizes to the nucleus and contains one helicase C-terminal domain and one helicase ATP-binding domain. Existing as multiple alternatively spliced isoforms, DDX21 functions as a component of the multi-protein B-WICH complex and acts as both a helicase that can unwind double-stranded RNA and as a foldase that can introduce secondary structures into single-stranded RNA. DDX21 exists as an autoantigen in people affected by watermelon stomach disease which is often characterized by chronic gastrointestinal bleeding.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: DDX21 (human) mapping to 10q22.1; Ddx21 (mouse) mapping to 10 B4.

**SOURCE**

DDX21 (D-8) is a mouse monoclonal antibody raised against amino acids 684-777 mapping near the C-terminus of DDX21 of human origin.

**PRODUCT**

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

DDX21 (D-8) is available conjugated to agarose (sc-376953 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376953 HRP), 200 µg/ml, for WB, HICP and ELISA; to either phycoerythrin (sc-376953 PE), fluorescein (sc-376953 FITC), Alexa Fluor® 488 (sc-376953 AF488), Alexa Fluor® 546 (sc-376953 AF546), Alexa Fluor® 594 (sc-376953 AF594) or Alexa Fluor® 647 (sc-376953 AF647), 200 µg/ml, for WB (RGB), IF, HICP and FCM; and to either Alexa Fluor® 680 (sc-376953 AF680) or Alexa Fluor® 790 (sc-376953 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**STORAGE**

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

**APPLICATIONS**

DDX21 (D-8) is recommended for detection of DDX21 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), immunohistochemistry (including paraffin-embedded sections) (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 DDX21 siRNA (h): sc-90420, DDX21 siRNA (m): sc-142925, DDX21 shRNA Plasmid (h): sc-90420-SH, DDX21 shRNA Plasmid (m): sc-142925-SH, DDX21 shRNA (h) Lentiviral Particles: sc-90420-V and DDX21 shRNA (m) Lentiviral Particles: sc-142925-V.

Molecular Weight of DDX21 isoforms: 87/80 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or U-698-M whole cell lysate: sc-364799.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG K-53 AF647 or m-IgG 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 BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24941 and Immunohistoamount: sc-45086, or Organo/Limonene Mount: sc-45087.

**DATA**

DDX21 (D-8): sc-376953. Direct fluorescent Western blot analysis of DDX21 expression in K-562 (A) and U-698-M (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-51614.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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