

DDX42 (S-15): sc-132257

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 and spliceosome assembly. Based on their distribution patterns, some members of this family may be involved in embryogenesis, spermatogenesis and cellular growth and division. DDX42 (DEAD (Asp-Glu-Ala-Asp) box polypeptide 42), also known as RHELP (RNA-helicase-like protein), RNAHP (RNA helicase-related protein) or SF3B125 (splicing factor 3B-associated 125 kDa protein), is a member of the DEAD-box helicase family of proteins and contains the conserved DEAD motif. Expressed in lung, thymus, muscle, tonsil, liver and pancreatic islets, DDX42 interacts with the SF3B component of the 17S U2 snRNP and is believed to function as an ATP-dependent RNA helicase. Two isoforms exist for DDX42 due to alternative splicing events.

REFERENCES

1. Suk, K., et al. 2000. Identification of a novel human member of the DEAD-box protein family. *Biochim. Biophys. Acta* 1501: 63-69.
2. Will, C.L., et al. 2002. Characterization of novel SF3B and 17S U2 snRNP proteins, including a human Prp5p homologue and an SF3B DEAD-box protein. *EMBO J.* 21: 4978-4988.
3. Mogass, M., et al. 2004. Genomewide analysis of gene expression associated with Tcof1 in mouse neuroblastoma. *Biochem. Biophys. Res. Commun.* 325: 124-132.
4. Qian, J., et al. 2004. Transcriptome profiling of marrow mononuclear cells of patients with myelodysplastic syndrome using cDNA microarray analysis. *Zhonghua Yi Xue Za Zhi* 84: 1260-1264.
5. Qian, J., et al. 2005. Refractory thrombocytopenia, an unusual myelodysplastic syndrome with an initial presentation mimicking idiopathic thrombocytopenic purpura. *Int. J. Hematol.* 81: 142-147.
6. Qian, J., et al. 2005. Gene expression profiling of the bone marrow mononuclear cells from patients with myelodysplastic syndrome. *Oncol. Rep.* 14: 1189-1197.
7. Uhlmann-Schiffler, H., et al. 2006. DDX42p—a human DEAD box protein with RNA chaperone activities. *Nucleic Acids Res.* 34: 10-22.

CHROMOSOMAL LOCATION

Genetic locus: DDX42 (human) mapping to 17q23.3; Ddx42 (mouse) mapping to 11 E1.

SOURCE

DDX42 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of DDX42 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-132257 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DDX42 (S-15) is recommended for detection of DDX42 isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with other DDX family members.

DDX42 (S-15) is also recommended for detection of DDX42 isoforms 1 and 2 in additional species, including canine.

Suitable for use as control antibody for DDX42 siRNA (h): sc-93996, DDX42 siRNA (m): sc-142939, DDX42 shRNA Plasmid (h): sc-93996-SH, DDX42 shRNA Plasmid (m): sc-142939-SH, DDX42 shRNA (h) Lentiviral Particles: sc-93996-V and DDX42 shRNA (m) Lentiviral Particles: sc-142939-V.

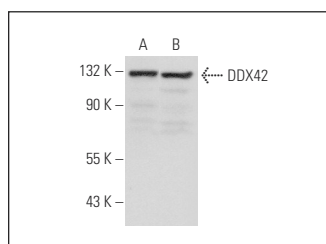
Molecular Weight of DDX42: 120 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa nuclear extract: sc-2120 or K-562 nuclear extract: sc-2130.

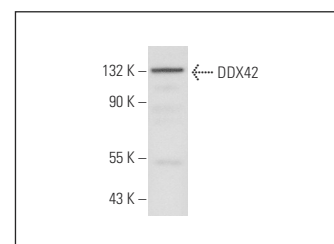
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



DDX42 (S-15): sc-132257. Western blot analysis of DDX42 expression in HeLa (A) and K-562 (B) nuclear extracts.



DDX42 (S-15): sc-132257. Western blot analysis of DDX42 expression in Jurkat whole cell lysate.

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.