

DDX50 (N-13): sc-104871

BACKGROUND

DDX50 (probable ATP-dependent RNA helicase DDX50, nucleolar protein Gu2, Gu-β) is a 737 amino acid protein encoded by the human gene DDX50. DDX50 belongs to the DEAD-box helicase family, DDX21/DDX50 subfamily and contains one helicase ATP-binding domain and one C-terminal helicase domain. DDX50 is a functional interaction partner of c-Jun in human cells. The N-terminal transcription activation region of c-Jun interacts with a C-terminal domain of DDX50. This interaction is stimulated by Anisomycin treatment in a manner that is concurrent with, but independent of, c-Jun phosphorylation. DDX50 is also believed to be a probable ATP-dependent RNA helicase. RNA helicases are highly conserved enzymes that utilize the energy derived from NTP hydrolysis to modulate the structure of RNA. RNA helicases participate in all biological processes that involve RNA, including transcription, splicing and translation.

REFERENCES

1. Doorbar, J., et al. 2000. The E1E4 protein of human papillomavirus type 16 associates with a putative RNA helicase through sequences in its C-terminus. *J. Virol.* 74: 10081-10095.
2. Bhattacharya, R., et al. 2002. Methylphosphate cap structure in small RNAs reduces the affinity of RNAs to La protein. *Gene Expr.* 10: 243-253.
3. Valdez, B.C., et al. 2002. Expression, cellular localization, and enzymatic activities of RNA helicase II/Guβ. *Exp. Cell Res.* 276: 249-263.
4. Westermarck, J., et al. 2002. The DEXD/H-box RNA helicase RHII/Gu is a co-factor for c-Jun-activated transcription. *EMBO J.* 21: 451-460.
5. Regard, J.B., et al. 2004. Verge: a novel vascular early response gene. *J. Neurosci.* 24: 4092-4103.

CHROMOSOMAL LOCATION

Genetic locus: DDX50 (human) mapping to 10q21.3; Ddx50 (mouse) mapping to 10 B4.

SOURCE

DDX50 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of DDX50 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-104871 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

DDX50 (N-13) is recommended for detection of DDX50 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).

Suitable for use as control antibody for DDX50 siRNA (h): sc-90688, DDX50 siRNA (m): sc-142942, DDX50 shRNA Plasmid (h): sc-90688-SH, DDX50 shRNA Plasmid (m): sc-142942-SH, DDX50 shRNA (h) Lentiviral Particles: sc-90688-V and DDX50 shRNA (m) Lentiviral Particles: sc-142942-V.

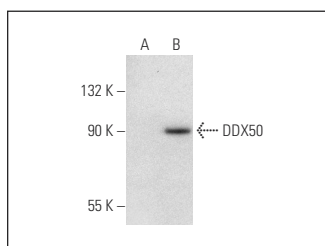
Molecular Weight of DDX50: 83 kDa.

Positive Controls: HeLa nuclear extract: sc-2120 or DDX50 (h2): 293T Lysate: sc-175076.

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



DDX50 (N-13): sc-104871. Western blot analysis of DDX50 expression in non-transfected: sc-117752 (A) and human DDX50 transfected: sc-175076 (B) 293T whole cell lysates.

RESEARCH USE

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

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Try **DDX50 (2258C1a): sc-81077**, our highly recommended monoclonal alternative to DDX50 (N-13).