

# DDX40 (C-15): sc-109254

## 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. DDX40 (DEAH (Asp-Glu-Ala-His) box polypeptide 40), also known as DHX40, PAD or ARG147, is a 779 amino acid protein that belongs to the DEAD-box family and contains one helicase C-terminal domain and one helicase ATP-binding domain. Expressed ubiquitously, DDX40 exists as multiple alternatively spliced isoforms and is thought to function as an ATP-dependent RNA helicase.

## REFERENCES

- Schmid, S.R. and Linder, P. 1992. DEAD protein family of putative RNA helicases. *Mol. Microbiol.* 6: 283-291.
- Tanner, N.K. and Linder, P. 2001. DEXD/H box RNA helicases: from generic motors to specific dissociation functions. *Mol. Cell* 8: 251-262.
- Xu, J., et al. 2002. Identification of a novel human DDX40 gene, a new member of the DEAH-box protein family. *J. Hum. Genet.* 47: 681-683.
- Abdelhaleem, M., et al. 2003. The human DDX and DHX gene families of putative RNA helicases. *Genomics* 81: 618-622.
- Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607570. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Cordin, O., et al. 2006. The DEAD-box protein family of RNA helicases. *Gene* 367: 17-37.
- Linder, P. 2006. DEAD-box proteins: a family affair-active and passive players in RNP-remodeling. *Nucleic Acids Res.* 34: 4168-4180.

## CHROMOSOMAL LOCATION

Genetic locus: DHX40 (human) mapping to 17q23.1; Dhx40 (mouse) mapping to 11 C.

## SOURCE

DDX40 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of DDX40 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-109254 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.

## APPLICATIONS

DDX40 (C-15) is recommended for detection of DDX40 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

DDX40 (C-15) is also recommended for detection of DDX40 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DDX40 siRNA (h): sc-93803, DDX40 siRNA (m): sc-142937, DDX40 shRNA Plasmid (h): sc-93803-SH, DDX40 shRNA Plasmid (m): sc-142937-SH, DDX40 shRNA (h) Lentiviral Particles: sc-93803-V and DDX40 shRNA (m) Lentiviral Particles: sc-142937-V.

Molecular Weight of DDX40: 86 kDa.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) 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<sup>™</sup> Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.