SANTA CRUZ BIOTECHNOLOGY, INC.

DDX32 (H-3): sc-398743

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. DDX32 (DEAH box polypeptide 32), also known as DHLP1 or DHX32, is a 743 amino acid nuclear protein that localizes to the mitochondria and is a member of the DEAD box helicase family. Expressed in various tissues, DDX32 is up-regulated by ionomycin in T lymphocytes and down-regulated in acute lymphoblastic leukemia. Considered a novel RNA helicase, DDX32 may play an important role in the development of colorectal cancer and may be involved in regulating T-cell response to certain apoptotic stimuli.

REFERENCES

1. Abdelhaleem, M. 2002. The novel helicase homologue DDX32 is down-regulated in acute lymphoblastic leukemia. Leuk. Res. 26: 945-954.
2. Abdelhaleem, M., et al. 2005. DHX32 expression suggests a role in lymphocyte differentiation. Anticancer Res. 25: 2645-2648.
3. Alli, Z., et al. 2005. The activation-induced expression of DHX32 in Jurkat T cells is specific and involves calcium and nuclear factor of activated T cells. Cell. Immunol. 237: 141-146.
4. Alli, Z., et al. 2005. Expression of DHX32 in lymphoid tissues. Exp. Mol. Pathol. 79: 219-223.
5. Alli, Z., et al. 2006. Nuclear and mitochondrial localization of the putative RNA helicase DHX32. Exp. Mol. Pathol. 81: 245-248.
6. Alli, Z., et al. 2007. A role for DHX32 in regulating T-cell apoptosis. Anticancer Res. 27: 373-377.

CHROMOSOMAL LOCATION

Genetic locus: DHX32 (human) mapping to 10q26.2.

SOURCE

DDX32 (H-3) is a mouse monoclonal antibody raised against amino acids 184-287 mapping within an internal region of DDX32 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.

DDX32 (H-3) is available conjugated to agarose (sc-398743 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398743 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398743 PE), fluorescein (sc-398743 FITC), Alexa Fluor® 488 (sc-398743 AF488), Alexa Fluor® 546 (sc-398743 AF546), Alexa Fluor® 594 (sc-398743 AF594) or Alexa Fluor® 647 (sc-398743 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398743 AF680) or Alexa Fluor® 790 (sc-398743 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

DDX32 (H-3) is recommended for detection of DDX32 of 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 DDX32 siRNA (h): sc-77143, DDX32 shRNA Plasmid (h): sc-77143-SH and DDX32 shRNA (h) Lentiviral Particles: sc-77143-V.

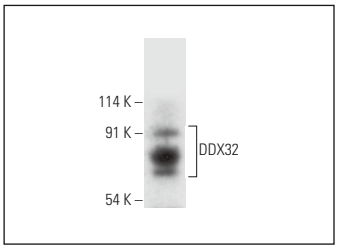
Molecular Weight of DDX32: 84 kDa.

Positive Controls: human heart extract: sc-363763.

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



DDX32 (H-3): sc-398743. Western blot analysis of DDX32 expression in human heart tissue extract.

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.

PROTOCOLS

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