

Technical Data Sheet

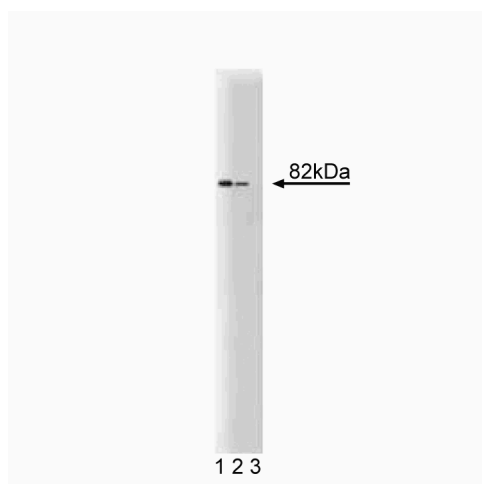
Purified Mouse Anti-Human DDX1**Product Information**

Material Number:	611206
Size:	50 µg
Concentration:	250 µg/ml
Clone:	22/DDX1
Immunogen:	Human DDX1 aa. 351-544
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Target MW:	82 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

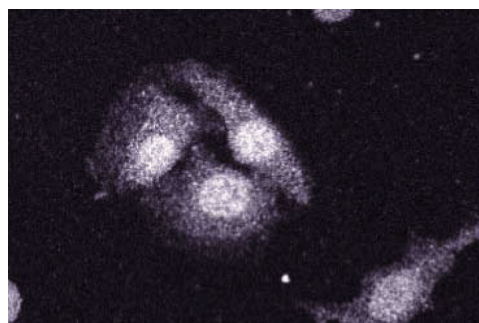
Description

DEAD box proteins, a family of putative RNA helicases, are characterized by eight conserved amino acid motifs that are arranged in a core region as found in the prototypical member of the family, eIF-4A. The family's name is derived from the amino acid sequence Asp-Glu-Ala-Asp (DEAD) that is located within the ATP hydrolysis motif. DEAD box proteins have been implicated in translation initiation and RNA splicing, degradation, and stability. The DEAD box protein, DDX1, was identified in retinoblastoma cell lines, where it is coamplified with MYCN, a member of the MYC transcription factor family. DDX1 is expressed at elevated levels in fetal tissues of neural origin (retina and brain). It is both cytoplasmic and nuclear in DDX1-amplified neuroblastoma and retinoblastoma cell lines. However, it localizes specifically to the nucleus in non-amplified cell lines. Thus, DDX1 is thought to be involved in nuclear RNA metabolism. In addition, the decrease in mean disease-free survival of neuroblastoma patients exhibiting coamplification of DDX1 and MYCN as compared to those exhibiting MYCN amplification indicates a possible role for DDX1 in cancer formation in neural tissues.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of DDX1 on a HeLa cell lysate
(Human cervical epitheloid carcinoma; ATCC CCL-2.2). Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-human DDX1 antibody.



Immunofluorescence staining of HeLa cells (Human cervical epitheloid carcinoma; ATCC CCL-2.2).

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Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20° C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611449	HeLa Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Igs	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Amler LC, Schurmann J, Schwab M. The DDX1 gene maps within 400 kbp 5' to MYCN and is frequently coamplified in human neuroblastoma. *Genes Chromosomes Cancer*. 1996; 15(2):134-137.(Biology)

Godbout R, Packer M, Bie W. Overexpression of a DEAD box protein (DDX1) in neuroblastoma and retinoblastoma cell lines. *J Biol Chem*. 1998; 273(33):21161-21168.(Biology)

Grundhoff AT, Kremmer E, Tureci O, et al. Characterization of DP103, a novel DEAD box protein that binds to the Epstein-Barr virus nuclear proteins EBNA2 and EBNA3C. *J Biol Chem*. 1999; 274(27):19136-19144.(Biology)

Squire JA, Thorne PS, Weitzman S, et al. Co-amplification of MYCN and a DEAD box gene (DDX1) in primary neuroblastoma. *Oncogene*. 1995; 10(7):1417-1422.(Biology)

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