

Technical Data Sheet

Purified Mouse Anti-Human DP103

Product Information

Material Number:	612152
Alternate Name:	Gemin3; DEAD box Protein-103; Ddx20
Size:	50 µg
Concentration:	250 µg/ml
Clone:	2/DP103/Gemin3
Immunogen:	Human DP103 aa. 667-783
Isotype:	Mouse IgG2b
Reactivity:	QC Testing: Human
Target MW:	103 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, DP103, contains seven N-terminal helicase motifs characteristic of DEAD box proteins followed by an SMN interaction domain (SID). DP103 mRNA has been reported to be widely expressed, and DP103 protein is found in the nucleus and cytoplasm. SMN, the gene mutated in spinal muscular atrophy, forms a 20S nuclear complex that includes DP103, SIP1 (SMN-interacting protein 1), and snRNPs. DP103 also co-localizes with SMN and SIP1 to nuclear bodies called gems. In addition, DP103 interacts with the proximal repressor domain of steroidogenic factor-1, a nuclear receptor essential for development of the gonads, adrenal gland, and hypothalamic nuclei. Thus, DP103 may have roles in SMN complex modulation of RNA splicing and in transcriptional repression.

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 DP103 on a Jurkat cell lysate (Human T-cell leukemia; ATCC TIB-152). Lane 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the mouse anti-human DP103 antibody.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20° C.

BD Biosciences

www.bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit www.bdbiosciences.com/how_to_order/

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2007 BD



Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Not Recommended

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
611451	Jurkat Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

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. 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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Charroux B, Pellizzoni L, Perkinson RA, Shevchenko A, Mann M, Dreyfuss G. Gemin3: A novel DEAD box protein that interacts with SMN, the spinal muscular atrophy gene product, and is a component of gems. *J Cell Biol.* 1999; 147(6):1181-1194.(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)

Meister G, Buhler D, Laggerbauer B, Zobawa M, Lottspeich F, Fischer U. Characterization of a nuclear 20S complex containing the survival of motor neurons (SMN) protein and a specific subset of spliceosomal Sm proteins. *Hum Mol Genet.* 2000; 9(13):1977-1986.(Biology)

Ou Q, Mouillet JF, Yan X, Dorn C, Crawford PA, Sadovsky Y. The DEAD box protein DP103 is a regulator of steroidogenic factor-1. *Mol Endocrinol.* 2001; 15(1):69-79.(Biology: Western blot)