

DDX20 Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO2156a

Product Information

Application	WB, ICC, E
Primary Accession	Q9UHI6
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	7B2B1
Isotype	IgG1
Calculated MW	92241
Description	DEAD box proteins, characterized by the conserved motif Asp-Glu-Ala-Asp (DEAD), are putative RNA helicases. They are implicated in a number of cellular processes involving alteration of RNA secondary structure such as translation initiation, nuclear and mitochondrial splicing, and ribosome and spliceosome assembly. Based on their distribution patterns, some members of this family are believed to be involved in embryogenesis, spermatogenesis, and cellular growth and division. This gene encodes a DEAD box protein, which has an ATPase activity and is a component of the survival of motor neurons (SMN) complex. This protein interacts directly with SMN, the spinal muscular atrophy gene product, and may play a catalytic role in the function of the SMN complex on RNPs.
Immunogen	Purified recombinant fragment of human DDX20 (AA: 725-824) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	11218
Other Names	Probable ATP-dependent RNA helicase DDX20, 3.6.4.13, Component of gems 3, DEAD box protein 20, DEAD box protein DP 103, Gemin-3, DDX20, DP103, GEMIN3
Dilution	WB~~1/500 - 1/2000 ICC~~N/A E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	DDX20 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DDX20
Synonyms	DP103, GEMIN3
Function	The SMN complex catalyzes the assembly of small nuclear ribonucleoproteins (snRNPs), the building blocks of the spliceosome, and thereby plays an important role in the splicing of cellular pre- mRNAs. Most spliceosomal snRNPs contain a common set of Sm proteins SNRPB, SNRPD1, SNRPD2, SNRPD3, SNRPE, SNRPF and SNRPG that assemble in a heptameric protein ring on the Sm site of the small nuclear RNA to form the core snRNP (Sm core). In the cytosol, the Sm proteins SNRPD1, SNRPD2, SNRPE, SNRPF and SNRPG are trapped in an inactive 6S pICln-Sm complex by the chaperone CLNS1A that controls the assembly of the core snRNP. To assemble core snRNPs, the SMN complex accepts the trapped 5Sm proteins from CLNS1A forming an intermediate. Binding of snRNA inside 5Sm triggers eviction of the SMN complex, thereby allowing binding of SNRPD3 and SNRPB to complete assembly of the core snRNP. May also play a role in the metabolism of small nucleolar ribonucleoprotein (snoRNPs).
Cellular Location	Cytoplasm. Nucleus, gem Note=Localized in subnuclear structures next to coiled bodies, called Gemini or Cajal bodies (Gems).
Tissue Location	Ubiquitous.

References

1.J Clin Invest. 2014 Sep;124(9):3807-24. 2.J Biol Chem. 1999 Jul 2;274(27):19136-44.

Images

