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DDX42 Blocking Peptide (N-Term)

Synthetic peptide
Catalog # BP21874a

Specification

DDX42 Blocking Peptide (N-Term) - Product Information

Primary Accession	Q86XP3
Other Accession	Q810A7, Q5R7D1

DDX42 Blocking Peptide (N-Term) - Additional Information

Gene ID 11325

Other Names
ATP-dependent RNA helicase DDX42, DEAD box protein 42, RNA helicase-like protein, RHELP, RNA helicase-related protein, RNAHP, SF3b DEAD box protein, Splicing factor 3B-associated 125 kDa protein, SF3b125, DDX42

Target/Specificity
The synthetic peptide sequence is selected from aa 124-138 of HUMAN DDX42

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

DDX42 Blocking Peptide (N-Term) - Protein Information

Name DDX42 {ECO:0000303|PubMed:16397294, ECO:0000312|HGNC:HGNC:18676}

Function
ATP-dependent RNA helicase that binds to partially double- stranded RNAs (dsRNAs) in order to unwind RNA secondary structures (PubMed:16397294). Unwinding is promoted in the presence of single- strand binding proteins (PubMed:16397294). Also mediates RNA duplex formation thereby displacing the single-strand RNA binding protein (PubMed:16397294). ATP and ADP modulate its activity: ATP binding and hydrolysis by DDX42 triggers RNA strand separation, whereas the ADP- bound form of the protein triggers annealing of complementary RNA strands (PubMed:16397294). Required for assembly of the 17S U2 SnRNP complex of the spliceosome, a large ribonucleoprotein complex that removes introns from transcribed pre-mRNAs: DDX42 associates transiently with the SF3B

subcomplex of the 17S U2 SnRNP complex and is released after fulfilling its role in the assembly of 17S U2 SnRNP (PubMed:12234937, PubMed:36797247). Involved in the survival of cells by interacting with TP53BP2 and thereby counteracting the apoptosis- stimulating activity of TP53BP2 (PubMed:19377511). Relocalizes TP53BP2 to the cytoplasm (PubMed:19377511).

Cellular Location
Cytoplasm. Nucleus

Tissue Location
Expressed in several cell lines (at protein level). Expressed in liver, lung, tonsil, thymus, muscle and pancreatic islets

DDX42 Blocking Peptide (N-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

DDX42 Blocking Peptide (N-Term) - Images

DDX42 Blocking Peptide (N-Term) - Background

ATP-dependent RNA helicase. Binds to partially double- stranded RNAs (dsRNAs) in order to unwind RNA secondary structures. Unwinding is promoted in the presence of single-strand binding proteins. Mediates also RNA duplex formation thereby displacing the single-strand RNA binding protein. ATP and ADP modulate its activity: ATP binding and hydrolysis by DDX42 triggers RNA strand separation, whereas the ADP-bound form of the protein triggers annealing of complementary RNA strands. Involved in the survival of cells by interacting with TP53BP2 and thereby counteracting the apoptosis-stimulating activity of TP53BP2. Relocalizes TP53BP2 to the cytoplasm.

DDX42 Blocking Peptide (N-Term) - References

Suk K.,et al.Biochim. Biophys. Acta 1501:63-69(2000).
Ikeda A.,et al.Submitted (DEC-1999) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Zody M.C.,et al.Nature 440:1045-1049(2006).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.