# abcam

#### Product datasheet

## Anti-DDX21 antibody [EPR14495] ab182156

Recombinant RobMAb

4 References 8 Images

Overview

Product name Anti-DDX21 antibody [EPR14495]

**Description** Rabbit monoclonal [EPR14495] to DDX21

Host species Rabbit

Tested applications Suitable for: Flow Cyt (Intra), ICC/IF, IHC-P, WB

Species reactivity Reacts with: Human

**Immunogen** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control WB: HeLa, and Jurkat lysates. IHC-P: human breast carcinoma tissue. ICC/IF: HeLa cells and

HepG2 cells. Flow Cyt (intra): HepG2 cells.

**General notes**This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information  $\underline{\text{see here}}$ .

Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**<sup>®</sup> **patents**.

**Properties** 

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

Storage buffer pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

**Purity** Protein A purified

Clonality Monoclonal
Clone number EPR14495

**Isotype** IgG

1

#### **Applications**

The Abpromise guarantee

Our <u>Abpromise guarantee</u> covers the use of ab182156 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/60.
ICC/IF		1/500.
IHC-P		1/200. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.  See IHC antigen retrieval protocols.  For unpurified use at 1/50 - 1/100
WB		1/1000 - 1/10000. Detects a band of approximately 87 kDa (predicted molecular weight: 87 kDa).

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Function Can unwind double-stranded RNA (helicase) and can fold or introduce a secondary structure to a

single-stranded RNA (foldase). Functions as cofactor for JUN-activated transcription. Involved in

rRNA processing.

**Sequence similarities**Belongs to the DEAD box helicase family. DDX21/DDX50 subfamily.

Contains 1 helicase ATP-binding domain. Contains 1 helicase C-terminal domain.

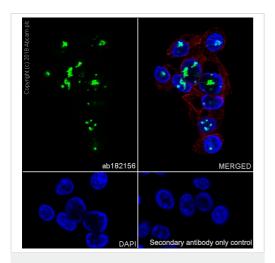
**Domain** The two enzymatic activities reside in two separate domains, the helicase in the N-terminus and

the foldase in the C-terminus.

The 3 X 5 AA repeats seem to be critical for the RNA folding activity.

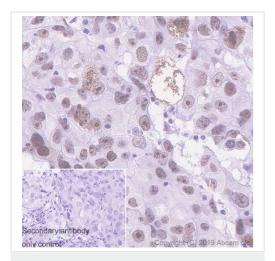
**Cellular localization** Nucleus > nucleolus.

#### **Images**



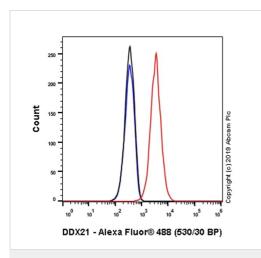
Immunocytochemistry/ Immunofluorescence - Anti-DDX21 antibody [EPR14495] (ab182156)

Immunocytochemistry/ Immunofluorescence analysis of HepG2 (Human hepatocellular carcinoma epithelial cell) cells labeling DDX21 with Purified ab182156 at 1:200 dilution (2.88  $\mu$ g/ml). Cells were fixed in 100% Methanol and permeabilized with None. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5  $\mu$ g/ml). Goat anti rabbit lgG (Alexa Fluor® 488, <u>ab150077</u>) was used as the secondary antibody at 1:1000 (2  $\mu$ g/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



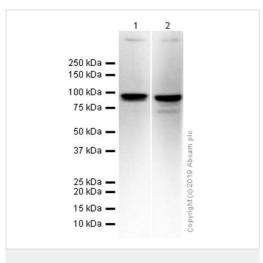
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-DDX21 antibody
[EPR14495] (ab182156)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma tissue sections labeling DDX21 with Purified ab182156 at 1:200 dilution (2.89 µg/ml). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used for detection. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Flow Cytometry (Intracellular) - Anti-DDX21 antibody [EPR14495] (ab182156)

Intracellular Flow Cytometry analysis of HepG2 (Human hepatocellular carcinoma epithelial cell) cells labeling DDX21 with Purified ab182156 at 1/60 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor<sup>®</sup> 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Western blot - Anti-DDX21 antibody [EPR14495] (ab182156)

**All lanes :** Anti-DDX21 antibody [EPR14495] (ab182156) at 1/10000 dilution (Purified)

**Lane 1**: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

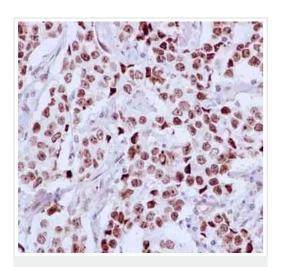
**Lane 2 :** Jurkat (Human Tcellleukemia Tlymphocyte) whole cell lysates

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/20000 dilution

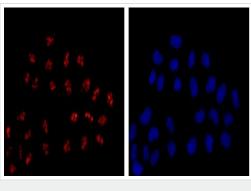
**Predicted band size:** 87 kDa **Observed band size:** 87 kDa



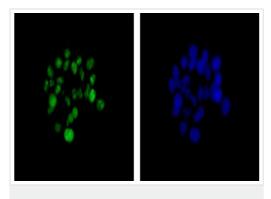
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-DDX21 antibody
[EPR14495] (ab182156)

Immunohistochemical analysis of paraffin-embedded Human infiltrating duct carcinoma of breast tissue, staining DDX21 with ab182156 at 1/100 dilution. Hematoxylin was used as a counterstain.

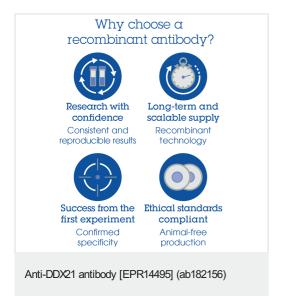
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-DDX21 antibody [EPR14495] (ab182156) Immunofluorescence analysis of HeLa cells, staining DDX21 (red) with ab182156 at 1/100 dilution. An Alexa Fluor®555 goat anti rabbit lgG was used as a secondary antibody. Cells were fixed with -20**I** Acetone. Nuclei were counterstained with DAPI (blue).



Immunocytochemistry/ Immunofluorescence - Anti-DDX21 antibody [EPR14495] (ab182156) Immunofluorescence analysis of HepG2 cells, staining DDX21 (green) with ab182156 at 1/100 dilution. An Alexa Fluor®488 goat anti rabbit lgG was used as a secondary antibody. Cells were fixed in 4% paraformaldehyde. Nuclei were counterstained with DAPI (blue).



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