# abcam

# Product datasheet

# Anti-hnRNP K antibody ab18195

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Overview

Product name Anti-hnRNP K antibody

**Description** Rabbit polyclonal to hnRNP K

Host species Rabbit

**Specificity** This antibody strongly detects a single band at ~65 kDa. The predicted molecular weight of

hnRNP K is ~51 kDa, but it has been shown to migrate around 65 kDa (see Milak and Clements, Nucleic Acids Research, vol 32(18), pp 5553-5569). This band is competed away by the addition

of the immunizing peptide.

Tested applications Suitable for: ICC/IF, IHC-P, WB

**Species reactivity** Reacts with: Mouse, Rat, Human

Predicted to work with: Rabbit, Chicken, Zebrafish

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

Positive control ab18195 gave a positive result in Mouse Testis and Ovary Tissue Lysates, HeLa nuclear extract

and the following whole cell lysates: HeLa; Jurkat; A431; 293T; NIH3T3; MEF1; PC12. This

antibody gave a positive result in IHC in the following FFPE tissue: Human Colon

Adenocarcinoma.

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

**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 or -

80°C. Avoid freeze / thaw cycle.

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our

scientific support team who will be happy to help.

Purity Immunogen affinity purified

**Clonality** Polyclonal

**Isotype** IgG

#### **Applications**

The Abpromise guarantee Our Abpromise guarantee covers the use of ab18195 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
ICC/IF		Use a concentration of 1 µg/ml.
IHC-P		Use a concentration of 0.5 $\mu$ g/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 60 kDa (predicted molecular weight: 51 kDa).

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**Function** One of the major pre-mRNA-binding proteins. Binds tenaciously to poly(C) sequences. Likely to

play a role in the nuclear metabolism of hnRNAs, particularly for pre-mRNAs that contain cytidine-

rich sequences. Can also bind poly(C) single-stranded DNA.

**Sequence similarities**Contains 3 KH domains.

Post-translational

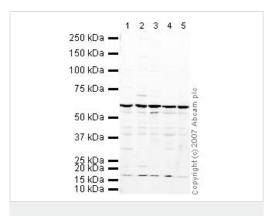
modifications

Arg-296 and Arg-299 are dimethylated, probably to asymmetric dimethylarginine.

**Cellular localization** Cytoplasm. Nucleus > nucleoplasm. In case of ASFV infection, there is a shift in the localization

which becomes predominantly nuclear.

#### **Images**



Western blot - Anti-hnRNP K antibody (ab18195)

All lanes: Anti-hnRNP K antibody (ab18195) at 1 µg/ml

Lane 1: NIH/3T3 whole cell lysate (ab7179)

Lane 2: MEF1 (Mouse embryonic fibroblast cell line)

Lane 3: Testis (Mouse) Tissue Lysate

Lane 4: Ovary (Mouse) Tissue Lysate

Lane 5: PC12 (Rat adrenal pheochromocytoma cell line)

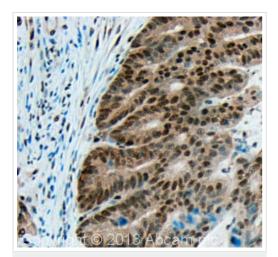
Lysates/proteins at 10 µg per lane.

### **Secondary**

**All lanes :** IRDye 680 Conjugated Goat Anti-Rabbit lgG (H+L) at 1/10000 dilution

Predicted band size: 51 kDa

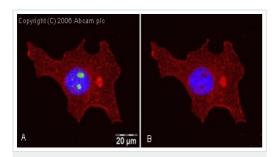
Observed band size: 65 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-hnRNP K antibody (ab18195)

IHC image of hnRNP K staining in Human Colon Adenocarcinoma formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab18195, 0.5 µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

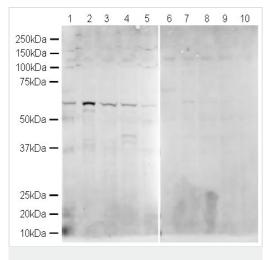
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



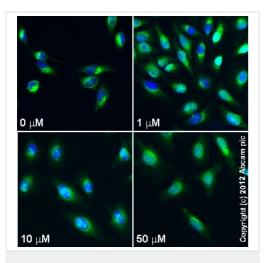
Immunocytochemistry/ Immunofluorescence - AntihnRNP K antibody (ab18195)

ICC/IF image of ab18195 stained human HeLa cells. The cells were methanol fixed (5 min) and incubated with the antibody (ab18195, 1µg/ml) for 1h at room temperature. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit lgG (H+L) used at a 1/1000 dilution for 1h. Image-iT<sup>TM</sup>FX Signal Enhancer was used as the primary blocking agent, 5% BSA (in TBS-T) was used for all other blocking steps. DAPI was used to stain the cell nuclei (blue). Alexa Fluor® 594 WGA was used to label plasma membranes (red).

Panel A (left) shows localisation of the antibody (green) to specific foci in the nucleus, panel B (right) does not show the Alexa Fluor® 488 channel for comparison.



Western blot - Anti-hnRNP K antibody (ab18195)



Immunocytochemistry/ Immunofluorescence - AntihnRNP K antibody (ab18195)

ab18195 staining hnRNP K in HeLa cells treated with PD 98059 (ab120234), by ICC/IF. Changes in localization of hnRNP K (translocation from cytoplasm to nucleous) correlates with increased concentration of hnRNP K, as described in literature.

The cells were incubated at 37°C for 24h in media containing different concentrations of ab120234 (hnRNP K) in DMSO, fixed with 4% formaldehyde for 10 minutes at room temperature and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with ab18195(5 µg/ml) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat anti-rabbit polyclonal antibody (ab96899) at 1/250 dilution was used as the secondary antibody. Nuclei were counterstained with DAPI and are shown in blue.

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