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
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 conjugated to KLH derived from within residues 200 - 300 of Human hnRNP K.Read Abcam's proprietary immunogen policy(Peptide available as ab19120.)
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.

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	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab18195** in the following tested applications.

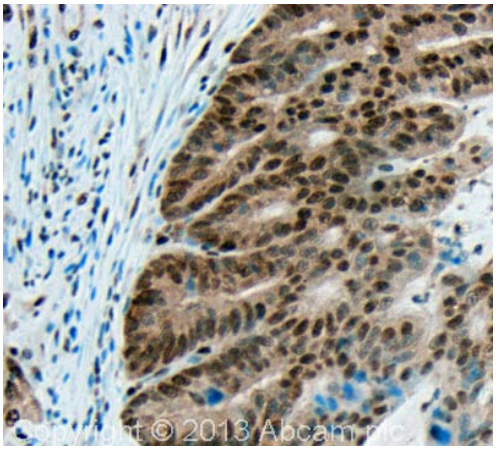
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 1 µg/ml.
IHC-P		Use a concentration of 0.5 µg/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).

Target

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.

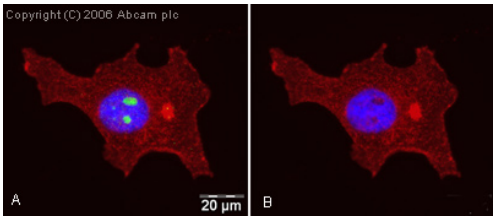
Anti-hnRNP K antibody images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded 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.

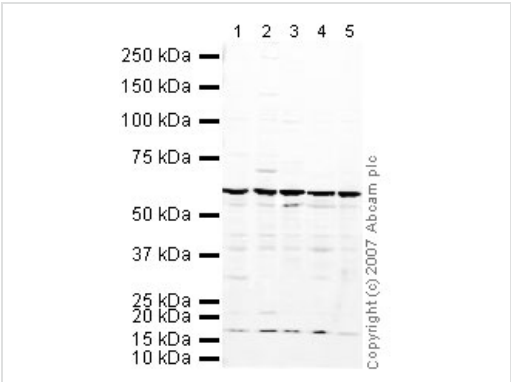
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunocytochemistry/ Immunofluorescence - hnRNP 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 IgG (H+L) used at a 1/1000 dilution for 1h. Image-iT™ 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 - hnRNP K antibody (ab18195)

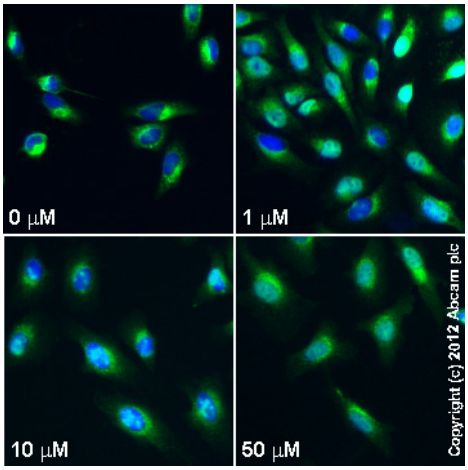
All lanes : Anti-hnRNP K antibody (ab18195) at 1 µg/ml

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
IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Predicted band size : 51 kDa
Observed band size : 65 kDa



Immunocytochemistry/ Immunofluorescence-Anti-hnRNP 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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