abcam

Product datasheet

Anti-hnRNP K antibody [F45 P9 C7] ab23644

★★★★★ 2 Abreviews 14 References 7 Images

Overview

Product name	Anti-hnRNP K antibody [F45 P9 C7]
Description	Mouse monoclonal [F45 P9 C7] to hnRNP K
Host species	Mouse
Tested applications	**Suitable for:** ICC/IF, WB, IHC-P, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Rabbit, Chicken
Immunogen	Synthetic peptide corresponding to Human hnRNP K aa 450 to the C-terminus (C terminal) conjugated to keyhole limpet haemocyanin. (Peptide available as **ab32584**)
Positive control	This antibody gave a positive signal in the following lysates: NIH 3T3 whole cell, MEF1 whole cell; PC12 whole cell; mouse testis tissue; mouse lung tissue. FFPE: Human colon tissue sections ICC/IF: HeLa cells
General notes	This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact **orders@abcam.com**. 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 Constituents: PBS, 6.97% L-Arginine

	Some batches contain 6.97% L-Arginine as a stabilizing agent. For lot-specific buffer information, please contact our Scientific Support team.
Purity	Protein G purified
Clonality	Monoclonal
Clone number	F45 P9 C7
Myeloma	Ag8.653
Isotype	IgG1
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab23644 in the following tested applications.

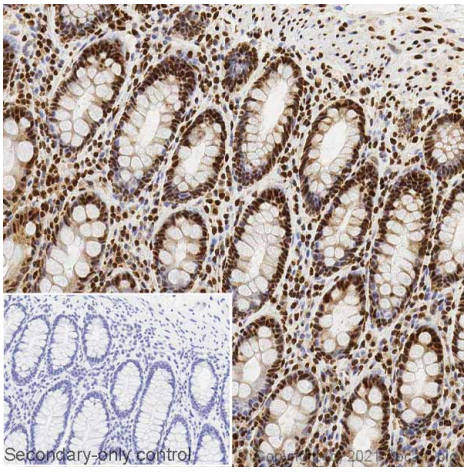
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 64 kDa (predicted molecular weight: 51 kDa).
IHC-P	★★★★★ (1)	Use at an assay dependent concentration. Perform heat mediated antigen retrieval via the microwave method before commencing with IHC staining protocol.
Flow Cyt (Intra)		Use 1µg for 10^6 cells. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

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.

Images

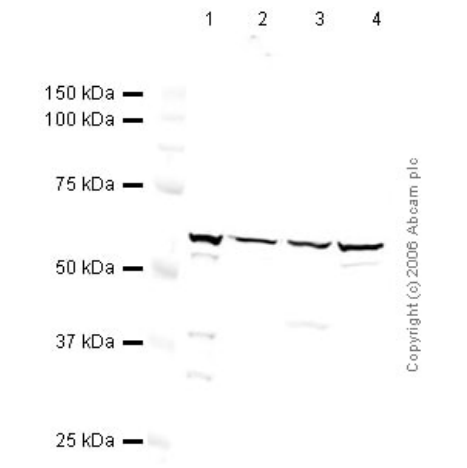


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-hnRNP K antibody [F45 P9 C7] (ab23644)

IHC image of hnRNP K staining in a section of formalin-fixed paraffin-embedded normal human colon* 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 20mins. The section was then incubated with ab23644, 1ug/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. The inset secondary-only control image is taken from an identical assay without primary antibody.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

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.



Western blot - Anti-hnRNP K antibody [F45 P9 C7] (ab23644)

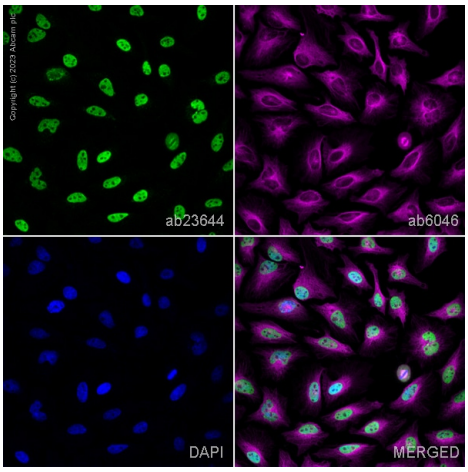
Lane 1 : Marker
Lanes 2-5 : Anti-hnRNP K antibody [F45 P9 C7] (ab23644) at 1 µg/ml

Lane 2 : HeLa (Human epithelial carcinoma cell line) Nuclear Lysate (**ab27251**) at 20 µg
Lane 3 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate (**ab27252**) at 20 µg
Lane 4 : Jurkat whole cell lysate (**ab7899**) at 20 µg
Lane 5 : HEK-293 whole cell lysate (**ab7902**) at 20 µg

Secondary
Lanes 2-5 : Rabbit Anti-Mouse IgG H&L (HRP) (**ab6728**) at 1/10000 dilution

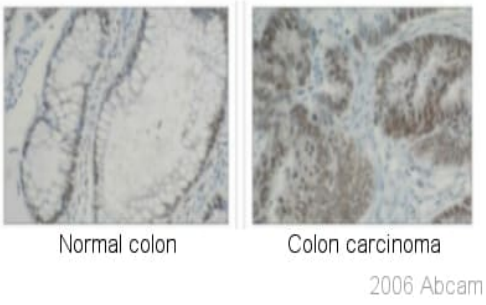
Performed under reducing conditions.

Predicted band size: 51 kDa



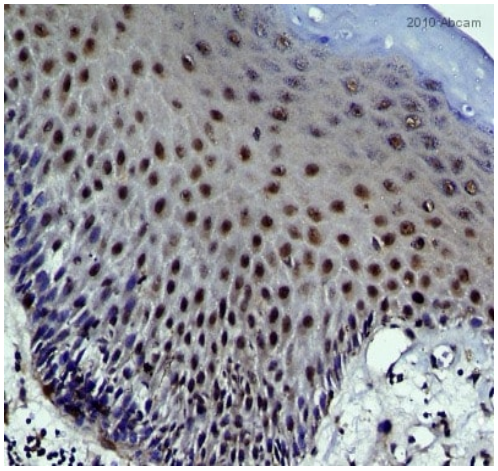
Immunocytochemistry/ Immunofluorescence - Anti-hnRNP K antibody [F45 P9 C7] (ab23644)

ab23644 staining hnRNP K in HeLa cells. The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% PBS-Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab23644 at 1µg/ml and **ab6046**, Rabbit polyclonal to beta Tubulin - Loading Control. Cells were then incubated with **ab150117**, Goat polyclonal Secondary Antibody to Mouse IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and **ab150080**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 594) at 1/1000 dilution (shown in pseudocolour magenta). Nuclear DNA was labelled with DAPI (shown in blue). Also suitable in cells fixed with 100% methanol (5 min).Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-hnRNP K antibody [F45 P9 C7] (ab23644)

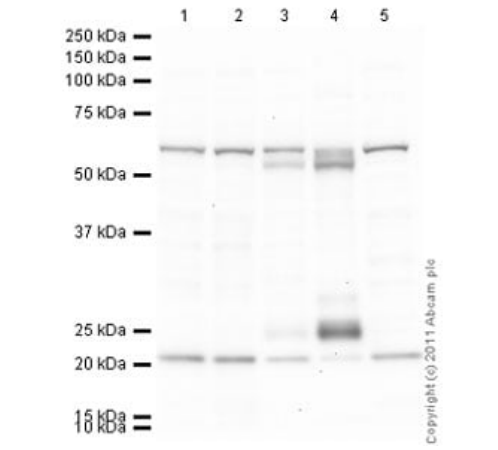
Formalin-fixed, paraffin embedded tissue sections from human normal colon or human colon carcinoma stained with ab23644 mouse monoclonal to hnRNP K. hnRNP K expression is increased in the tumour tissue.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-hnRNP K antibody [F45 P9 C7] (ab23644)

This image is courtesy of an Abreview submitted by Satyendra Tripathi

ab23644 staining hnRNP K in Human head and neck tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 1% BSA for 1 hour at 25°C; antigen retrieval was by heat mediation with Tris EDTA (pH9). Samples were incubated with primary antibody (1 µg/ml in TBST) for 16 hours at 4°C. An undiluted HRP-conjugated Rabbit anti-mouse polyclonal was used as the secondary antibody.



Western blot - Anti-hnRNP K antibody [F45 P9 C7] (ab23644)

All lanes : Anti-hnRNP K antibody [F45 P9 C7] (ab23644) at 5 µg/ml

Lane 1 : NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate
Lane 2 : MEF1 (Mouse embryonic fibroblast cell line) Whole Cell Lysate
Lane 3 : Testis (Mouse) Tissue Lysate
Lane 4 : Lung (Mouse) Tissue Lysate
Lane 5 : PC12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate

Lysates/proteins at 20 µg per lane.

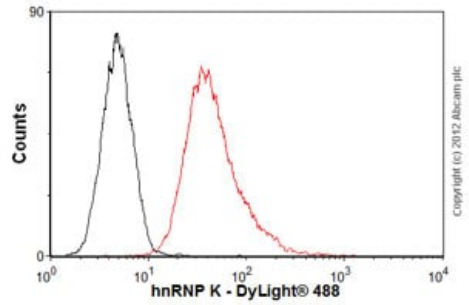
Secondary
All lanes : Goat Anti-Mouse IgG H&L (HRP) preadsorbed (**ab97040**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 51 kDa
Observed band size: 56 kDa
Additional bands at: 21 kDa, 24 kDa, 54 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 4 minutes



Flow Cytometry (Intracellular) - Anti-hnRNP K antibody [F45 P9 C7] (ab23644)

Overlay histogram showing HeLa cells stained with ab23644 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab23644, 1µg/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

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