abcam

ab39975

Anti-hnRNP K antibody [3C2]

Key facts

Isotype	IgG2b
Host species	Mouse
Storage buffer	Preservative: 0.1% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Native Full Length Protein corresponding to Human HNRNPK. Database link P61978
Clone number	3C2
Purification technique	Affinity purification Protein A
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Expected

Species	Mouse, Rat, Hamster, Xenopus laevis, Human, Cow
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1 µg for 10^6 Cells
Notes	ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Cow, Xenopus laevis, Rat, Hamster
Dilution info	-
Notes	-

ELISA

Expected

Species	Mouse, Rat, Hamster, Xenopus laevis, Human, Cow
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Predicted

Species	Mouse, Cow, Xenopus laevis, Rat, Hamster
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Cow, Xenopus laevis, Rat, Hamster
Dilution info	-
Notes	-

ChIP/Chip

Expected

Species	Mouse, Rat, Hamster, Xenopus laevis, Human, Cow
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information HNRNPK

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. Plays an important role in p53/TP53 response to DNA damage, acting at the level of both transcription activation and repression. When sumoylated, acts as a transcriptional coactivator of p53/TP53, playing a role in p21/CDKN1A and 14-3-3 sigma/SFN induction (By similarity). As far as transcription repression is concerned, acts by interacting with long intergenic RNA p21 (lincRNA-p21), a non-coding RNA induced by p53/TP53. This interaction is necessary for the induction of apoptosis, but not cell cycle arrest. As part of a ribonucleoprotein complex composed at least of ZNF827, HNRNPL and the circular RNA circZNF827 that nucleates the complex on chromatin, may negatively regulate the transcription of genes involved in neuronal differentiation (PubMed:33174841).

Storage

Shipped at conditions Blue Ice

Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Heterogeneous nuclear ribonucleoprotein K (hnRNP K) is a multifunctional protein that plays a critical role in RNA metabolism including RNA splicing translation and transcription. Alternate names for hnRNP K include synkaryon-associated protein and hnRNP KurB. It has a molecular mass of approximately 51 kDa and is ubiquitously expressed in the nucleus and cytoplasm of eukaryotic cells. This protein features three KH (K homology) domains that enable it to interact with nucleic acids and other proteins.
Biological function summary	HnRNP K serves as a transcriptional regulator and participates in the assembly of ribonucleoprotein complexes. As part of the ribonucleoprotein complex it interacts with both RNA and DNA influencing various gene expression pathways. It also modulates the activity of several transcription factors including c-Myc and has been implicated in cell proliferation and differentiation. This protein's versatile functions make it an important component in various cellular processes.
Pathways	HnRNP K plays an important role in signal transduction and the p53 pathway. In the p53 pathway hnRNP K acts as a coactivator enhancing the transcriptional activity of the tumor suppressor p53 and influencing cell cycle regulation and apoptosis. Additionally hnRNP K interacts with several proteins including the c-Myc oncogene to regulate gene expression associated with growth and cell cycle progression.
Associated diseases and disorders	HnRNP K has been linked to cancer and neurological disorders. Its interaction with c-Myc makes it relevant in various cancers where c-Myc is dysregulated contributing to unchecked cell proliferation. Furthermore alterations in hnRNP K expression or function have been associated with neurodegenerative disorders where it might interact with proteins like TDP-43 or FUS affecting neuronal function and survival.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

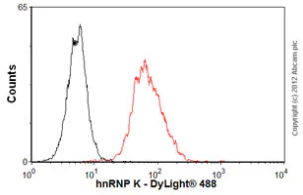
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

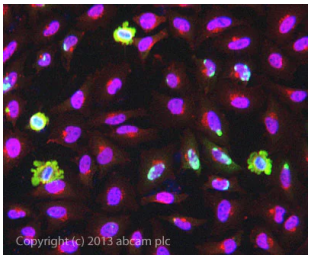
2 product images



Flow Cytometry - Anti-hnRNP K antibody [3C2] (ab39975)

HnRNP K Flow Cytometry staining using mouse Anti-hnRNP K antibody

Overlay histogram showing HeLa cells stained with ab39975 (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 (ab39975, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2b [PLPV219] (ab91366, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.



Immunocytochemistry/ Immunofluorescence - Anti-hnRNP K antibody [3C2] (ab39975)

HnRNP K Immunocytochemistry/ Immunofluorescence staining using mouse Anti-hnRNP K antibody

ICC/IF image of ab39975 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab39975 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- mouse (ab96879) IgG (H+L) used at a 1/250 dilution for 1h. Alexa

Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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