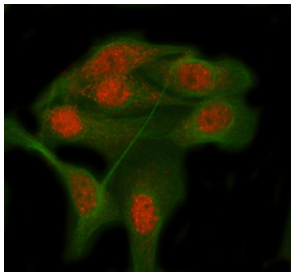
RBM12B Antibody / RNA-binding protein 12B (FY12589)

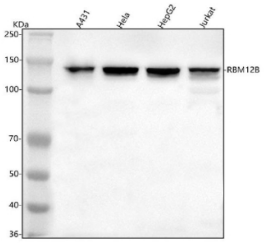
Catalog No.	Formulation	Size
FY12589	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

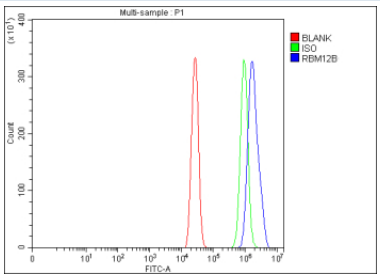
Availability	1-2 days
Species Reactivity	Human
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q8IXT5
Localization	Nucleoplasm
Applications	Western Blot: 0.25-0.5ug/ml Immunocytochemistry: 5ug/ml Immunofluorescence: 5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This RBM12B antibody is available for research use only.



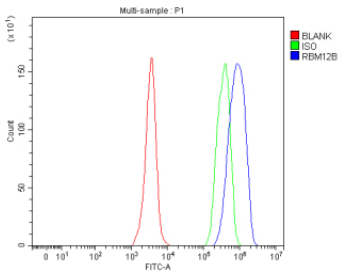
Immunofluorescent staining of RBM12B using anti-RBM12B antibody (red) and anti-Beta Tubulin antibody (green). RBM12B was detected in immunocytochemical section of HELA cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/ml rabbit anti-RBM12B antibody and mouse anti-Beta Tubulin antibody overnight at 4oC. Cy3 Conjugated Goat Anti-Rabbit IgG and FITC Conjugated Goat Anti-Mouse IgG were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



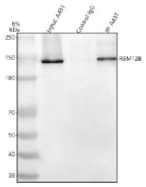
Western blot analysis of RBM12B using anti-RBM12B antibody. Lane 1: human whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: human Jurkat whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-RBM12B antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. A prominent band is detected at ~130 kDa, slightly higher than the calculated ~118 kDa. The slower migration is consistent with reported observations for RBM12B and with phosphorylation- or low-complexity-region-related migration behavior typical of RNA-binding proteins.



Flow Cytometry analysis of cells using anti-RBM12B antibody. Overlay histogram showing cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-RBM12B antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



Flow Cytometry analysis of JK cells using anti-RBM12B antibody. Overlay histogram showing JK cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-RBM12B antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



Immunoprecipitating (IP) RBM12B in whole cell lysate. Western blot analysis of RBM12B using anti-RBM12B antibody; Lane 1: whole cell lysates (30ug); Lane 2: Rabbit control IgG instead of anti-RBM12B antibody in whole cell lysate; Lane 3: anti-RBM12B antibody (2ug) + whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-RBM12B antibody at a dilution of 0.5 ug/ml and probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using ECL Plus Western Blotting Substrate. A specific band was detected for RBM12B at approximately 130 kDa. The expected molecular weight of RBM12B is at 118 kDa.

Description

RBM12B antibody detects RNA-binding protein 12B, a member of the RNA recognition motif (RRM) family that plays key roles in post-transcriptional gene regulation, mRNA processing, and nuclear RNA metabolism. RBM12B is believed to participate in alternative splicing and transcript stability by binding specific RNA motifs, thereby influencing gene expression patterns across multiple tissues. The RBM12B antibody is widely used in molecular biology and RNA research to study nuclear RNA dynamics, splicing regulation, and transcriptional coupling.

RBM12B is encoded by the RBM12B gene located on human chromosome 8q24.23. The protein is approximately 1,010 amino acids long and contains multiple RRM domains, each recognizing short RNA sequence elements. These RRMs are supported by intrinsically disordered regions that enable flexible interactions with other RNA-binding proteins and components of the spliceosome. RBM12B localizes primarily to the nucleus, where it forms speckle-like foci typical of splicing regulators.

The RBM12B antibody detects a 110-130 kilodalton band by western blot and reveals nuclear punctate staining under immunofluorescence microscopy. RBM12B interacts with heterogeneous nuclear ribonucleoproteins (hnRNPs) and splicing factors such as SRSF1, influencing exon inclusion and mRNA diversity. Through these interactions, RBM12B contributes to fine-tuning of transcript variants essential for cell type-specific expression and developmental processes.

Recent studies suggest RBM12B modulates gene expression linked to neuronal development and stress responses. Altered RBM12B expression has been reported in neurological disorders and cancer, where it affects transcriptome remodeling and mRNA turnover. Its paralog, RBM12, shares structural similarities, yet RBM12B may regulate distinct subsets of mRNAs, suggesting functional divergence within the family.

As a multifunctional RNA-binding protein, RBM12B connects transcriptional output with RNA processing and export. NSJ Bioreagents provides a validated RBM12B antibody optimized for its applications, supporting research into mRNA processing, splicing regulation, and gene expression control.

Application Notes

Optimal dilution of the RBM12B antibody should be determined by the researcher.

Immunogen

E.coli-derived human RBM12B recombinant protein (Position: L186-K997) was used as the immunogen for the RBM12B antibody.

Storage

After reconstitution, the RBM12B antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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