abcam

ab154831

Anti-RNF11 antibody [EPR6820]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR6820
Purification technique	Affinity purification Protein A
Concentration	2.132 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

ICC/IF

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/100 - 1/500
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information RNF11

Function Essential component of a ubiquitin-editing protein complex, comprising also TNFAIP3, ITCH and TAX1BP1, that ensures the transient nature of inflammatory signaling pathways. Promotes the association of TNFAIP3 to RIPK1 after TNF stimulation. TNFAIP3 deubiquitinates 'Lys-63' polyubiquitin chains on RIPK1 and catalyzes the formation of 'Lys-48'-polyubiquitin chains. This leads to RIPK1 proteasomal degradation and consequently termination of the TNF- or LPS-mediated activation of NF-kappa-B. Recruits STAMBP to the E3 ubiquitin-ligase SMURF2 for ubiquitination, leading to its degradation by the 26S proteasome.

Storage

Shipped at conditions Conditional Ambient

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

Notes

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

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

Activity summary	RNF11 also known as Ring Finger Protein 11 is a ubiquitin ligase that plays a role in the ubiquitination process. It contains a RING finger domain which is important for its function in protein-protein interactions and tagging proteins for degradation. This protein has a molecular mass of approximately 13 kDa. RNF11 is widely expressed in various tissues including the brain heart and liver suggesting its involvement in several cellular processes.
Biological function summary	RNF11 acts as part of the A20 ubiquitin-editing complex which is essential in regulating NF-kB signaling pathways. It interacts with various other proteins to modulate inflammation and immune responses by controlling the degradation of signaling molecules. The presence of RNF11 in immune cells emphasizes its role in immune regulation. RNF11 influences cellular responses to external stress signals thereby maintaining cellular homeostasis.
Pathways	RNF11 plays a significant role in the NF-kB and TGF-beta signaling pathways. It cooperates with proteins such as A20 and ITCH to mediate the ubiquitination process a critical component of these pathways. In the NF-kB pathway RNF11 helps to regulate transcriptional activation which affects inflammation and immune response modulation. Within the TGF-beta pathway it influences cell growth and differentiation.

Associated diseases and disorders	RNF11 is linked to certain inflammatory diseases and cancers. Malfunction in the regulation by RNF11 can lead to dysregulated NF-kB signaling contributing to chronic inflammatory conditions like rheumatoid arthritis. In cancers altered RNF11 expression levels have been observed potentially affecting tumor growth and metastasis through NF-kB pathway disruption. Its interaction with the deubiquitinating enzyme A20 in these disease states highlights its importance in maintaining normal cellular functions.

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

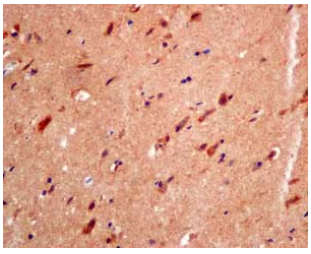
We do not recommend this combination. It is not covered by our product promise.

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.

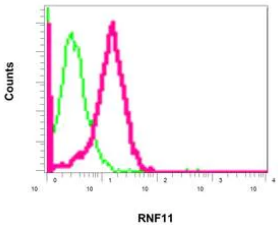
5 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RNF11 antibody [EPR6820] (ab154831)

RNF11 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-RNF11 antibody

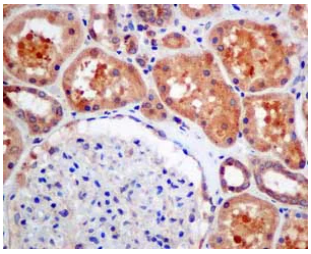
Immunohistochemical analysis of paraffin-embedded Human brain tissue labeling RNF11 with ab154831 at 1/50 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-RNF11 antibody [EPR6820] (ab154831)

RNF11 Flow Cytometry (Intracellular) staining using rabbit Anti-RNF11 antibody

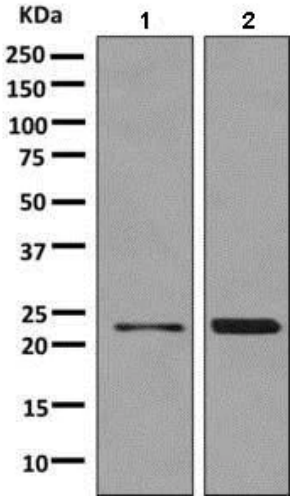
Intracellular flow cytometric analysis of permeabilized MCF7 cells labeling RNF11 with ab154831 at 1/100 dilution (red) compared to a rabbit IgG negative control (green).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RNF11 antibody [EPR6820] (ab154831)

RNF11 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-RNF11 antibody

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling RNF11 with ab154831 at 1/50 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-RNF11 antibody [EPR6820] (ab154831)

All lanes:
Western blot - Anti-RNF11 antibody [EPR6820] (ab154831) at 1/1000 dilution

Lane 1:
MCF7 cell lysate at 10 µg

Lane 2:
Human fetal liver tissue lysate at 10 µg

Secondary

All lanes:
Goat anti-rabbit HRP conjugated at 1/2000 dilution

Predicted band size: 17 kDa, 30 kDa

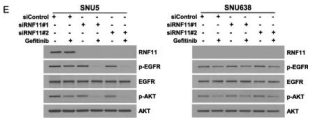


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Western blot - Anti-RNF11 antibody [EPR6820] (ab154831)

RNF11 western blot using anti-RNF11 antibody [EPR6820] ab154831. Publication image and figure legend from Sa, J. K., Hong, J. Y., et al., 2020, Genome Med, PubMed 32070411.

ab154831 was used in this publication in western blot. This may not be the same as the application(s) guaranteed by Abcam. For a full list of applications guaranteed by Abcam for ab154831 please see the product overview.

Transcriptome correlates of gefitinib sensitivity. a Elastic-net regression results of transcriptome features that predict pharmacological response to gefitinib. The bottom scatter plot represents drug response for gefitinib-treated tumors. The upper heatmap shows the top extracted features in the model. The left bar graph shows the averaged weight of each predictive feature. The number of appearances in 100 bootstraps is indicated in parentheses. b Scatter plot revealing a linear correlation between gefitinib AUC and RNF11 transcriptome expression. Correlation coefficients

and P values were obtained by Pearson correlation analysis. c Immunoblot analysis of RNF11, p-EGFR, EGFR in gastric cancer cell-lines. β-Actin was used as a loading control (left panel). Cell proliferation assay in EGFR-activated gastric cancer cell-lines (right panel). Cancer cells were exposed to gefitinib for 72 h, and then, cell viability was measured. d Gastric cancer cell-lines with high (SNU5; left panel) and low (SNU638; right panel) RNF11 expression were transiently transfected with 10 nM of siRNF11 and treated with gefitinib for 72 h the next day. The results are represented as the mean ± SD of triplicate wells and are representative of three independent experiments. e Immunoblot analysis of EGFR signaling-related molecules, including p-EGFR, EGFR, p-AKT, and AKT in gastric cancer cell-lines that were transiently transfected with 10 nM of siRNF11 and treated with gefitinib for 4 h the next day. P values in c, d were derived from two-sided Student’s t tests

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