abcam

# ab250142

# Anti-RNF21/IFP1 antibody [EPR11305(2)] - BSA and Azide free

Recombinant | RabMAb

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | pH: 7.2 - 7.4 Constituents: PBS |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Carrier free** | Yes |
| **Clone number** | EPR11305(2) |
| **Purification technique** | Affinity purification Protein A |

## Reactivity data

## WB

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

## Flow Cyt (Intra)

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

## Target data

See full target information TRIM34

| | |
|---|---|
| **Function** | Functions as antiviral protein and contributes to the defense against retroviral infections (PubMed:17156811, PubMed:32282853). Acts as a capsid-specific restriction factor with the help of TRIM5 and prevents infection from non-host-adapted retroviruses (PubMed:32282853). During influenza A virus infection, promotes programmed cell death by targeting ZBP1 for 'Lys-63'-linked polyubiquitination (PubMed:35065966). In turn, promotes ZBP1 recruitment of RIPK3 to mediate virus-induced programmed necrosis (PubMed:35065966). Negatively regulates the function of mitochondria by enhancing mitochondrial depolarization leading to cytochrome c release and mitochondria-dependent apoptosis (PubMed:31956709). Also promotes the formation of multinucleated giant cells by means of cell fusion and phagocytosis in epithelial cells (PubMed:31487507). |

## Storage

| | |
|---|---|
| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | +4°C |
| **Storage information** | Do Not Freeze |

## Notes

ab250142 is the carrier-free version of ab180130.

**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.

**Conjugation ready**
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

**Compatibility**
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

## Supplementary info

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

| | |
|---|---|
| **Activity summary** | RNF21 also known as IFP1 is a human protein with a molecular weight of approximately 43 kDa. It belongs to the RING finger protein family functioning as an E3 ubiquitin ligase. Members of this family typically regulate protein degradation through the ubiquitin-proteasome system. RNF21 is widely expressed in various tissues including the brain liver and heart. This expression suggests important roles across different physiological contexts. |
| **Biological function summary** | The E3 ubiquitin ligase activity of RNF21 contributes to the regulation of protein homeostasis. RNF21 potentially participates in forming larger protein complexes which could be involved in cellular processes like cell cycle regulation. By tagging specific proteins for degradation RNF21 maintains cellular protein equilibrium. This process impacts various cellular functions including signal transduction and cellular stress responses. |
| **Pathways** | The function of RNF21 integrates within the ubiquitin-proteasome pathway and connects to protein turnover. This pathway involves numerous proteins such as ubiquitin-conjugating enzymes which work alongside RNF21. Additionally RNF21 may intersect with signaling pathways related to protein stability where it collaborates with proteins like SCF complexes which also function in protein degradation. |
| **Associated diseases and disorders** | RNF21 has connections to neurodegenerative diseases such as Alzheimer's disease where protein aggregation becomes problematic. Aberrant protein degradation can exacerbate these disease conditions. RNF21's interactions with proteins like tau which is involved in Alzheimer's pathology illustrate its potential influence. |

Moreover its role in inflammatory responses might link RNF21 to disorders like rheumatoid arthritis where improper protein regulation plays a role.

## 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**

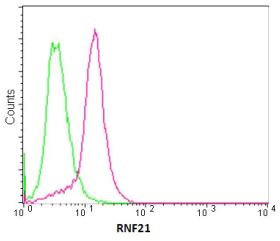
We do not recommend this combination. It is not covered by our product promise.

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.

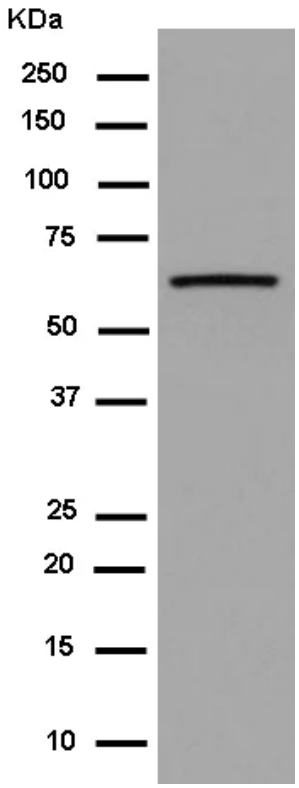
## 3 product images




### Flow Cytometry (Intracellular) - Anti-RNF21/IFP1 antibody [EPR11305(2)] - BSA and Azide free (ab250142)

RNF21/IFP1 Flow Cytometry (Intracellular) staining using rabbit Anti-RNF21/IFP1 antibody

This data was developed using ab180130, the same antibody clone in a different buffer formulation.
Intracellular Flow Cytometry analysis of K562 cells labeling RNF21/IFP1 using ab180130 at 1/60 dilution. A Goat anti rabbit IgG (FITC) at 1/75 dilution was used as secondary antibody. Cells were fixed with 2% paraformaldehyde. Isotype control: Rabbit IgG.




## Western blot - Anti-RNF21/IFP1 antibody [EPR11305(2)] - BSA and Azide free (ab250142)

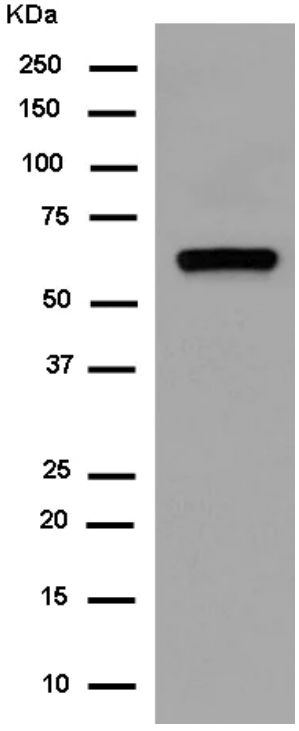
This data was developed using ab180130, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-RNF21/IFP1 antibody [EPR11305(2)] (ab180130) at 1/10000 dilution

All lanes:
K562 cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 57 kDa




## Western blot - Anti-RNF21/IFP1 antibody [EPR11305(2)] - BSA and Azide free (ab250142)

This data was developed using ab180130, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-RNF21/IFP1 antibody [EPR11305(2)] (ab180130) at 1/2000 dilution

All lanes:
Jurkat cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 57 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.