abcam

ab249369

# Anti-ISG20 antibody [EPR8972] - 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** | EPR8972 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 0.998 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## IP

### Not recommended

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

## WB

**Tested**

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

## IHC-P

**Not recommended**

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

## ICC/IF

**Not recommended**

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

## Flow Cyt (Intra)

**Tested**

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

# Target data

See full target information ISG20

**Function** Interferon-induced antiviral exoribonuclease that acts mainly on single-stranded RNA (PubMed:11401564, PubMed:12594219, PubMed:16033969). Exhibits antiviral activity against RNA viruses including hepatitis C virus (HCV), hepatitis A virus

(HAV) and yellow fever virus (YFV) (PubMed:16514659, PubMed:21036379). Inhibition of several viruses such as chikungunya virus (CHIKV) does not involve the degradation of viral RNAs, but rather the inhibition of translation of viral proteins (By similarity). Exerts a translational control over a large panel of non-self RNA substrates while sparing endogenous transcripts. This activity correlates with the protein's ability to localize in cytoplasmic processing bodies (PubMed:31600344). May also act as master regulator of over hundred interferon stimulated genes leading to viral genome translation inhibition (By similarity). May play additional roles in the maturation of snRNAs and rRNAs, and in ribosome biogenesis (PubMed:16514659).

## 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

ab249369 is the carrier-free version of ab166633.

**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** | ISG20 also known as Interferon Stimulated Gene 20 kDa is an exonuclease enzyme with a molecular weight of around 20 kilodaltons. It degrades single-stranded RNA and DNA primarily involved in antiviral defense by targeting viral RNAs. ISG20 is widely expressed in several human tissues with high expression levels in immune-related cells and tissues such as lymph nodes spleen and blood leukocytes. This protein becomes strongly upregulated in response to interferons linking it to the body's innate immune response. |
| **Biological function summary** | ISG20 serves as an antiviral factor by degrading viral genomes to restrict infection. It does not work alone; often it functions as part of a larger antiviral mechanism alongside other interferon-induced proteins like PKR and OAS. Through its RNA-degrading activity ISG20 contributes significantly to controlling the spread of viruses by breaking down the RNA from invading organisms particularly RNA viruses. This makes ISG20 an important player in reducing viral loads during infections. |
| **Pathways** | ISG20 is mainly associated with the interferon signaling pathway where it acts downstream to execute immune processes. It interacts with and complements other antiviral proteins such as RNase L which also plays a role in degrading RNA during viral responses. Additionally ISG20 links to the broader regulation of apoptosis and cell death pathways showing how it assists in eliminating infected cells to prevent further viral proliferation. |
| **Associated diseases and disorders** | ISG20 has implications in viral infections such as hepatitis C and influenza. Its role in degrading viral RNA positions it as a potential therapeutic target for mitigating these infections. During hepatitis C infection ISG20 works in conjunction with proteins like IRF9 to modulate immune response and limit virus replication. Researchers study ISG20 for its potential contribution to the severity of flu infections where its activity may influence the immune system's effectiveness in combating the influenza virus. |

## 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.

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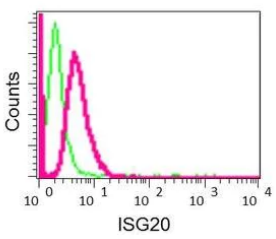
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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## 2 product images

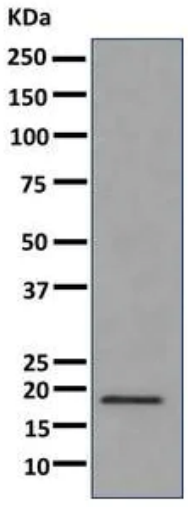



### Flow Cytometry (Intracellular) - Anti-ISG20 antibody [EPR8972] - BSA and Azide free (ab249369)

ISG20 Flow Cytometry (Intracellular) staining using rabbit Anti-ISG20 antibody

This data was developed using ab166633, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of permeabilized Daudi cells using ab166633 at a 1/10 dilution (red) or a Rabbit IgG (negative) (green).

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### Western blot - Anti-ISG20 antibody [EPR8972] - BSA and Azide free (ab249369)

ISG20 Western blot staining of Daudi cell lysate using rabbit Anti-ISG20 antibody

This data was developed using ab166633, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-ISG20 antibody [EPR8972] (ab166633) at 1/1000 dilution

All lanes:
Daudi cell lysate at 10 µg

Predicted band size: 20 kDa

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