abcam

**ab249348**

# Anti-FAM96B antibody [EPR10178] - 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** | EPR10178 |
| **Purification technique** | Affinity purification |

## Reactivity data

## IP

### Tested

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

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## WB

### Tested

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

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## IHC-P

### Not recommended

| | |
|---|---|
| **Species** | Human, Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## ICC/IF

### Not recommended

| | |
|---|---|
| **Species** | Human, Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## Flow Cyt (Intra)

### Tested

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

### Predicted

| | |
|---|---|
| **Species** | Mouse, Rat |
| **Dilution info** | - |
| **Notes** | - |

## Target data

See full target information CIAO2B

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|---|---|
| **Function** | Component of the cytosolic iron-sulfur protein assembly (CIA) complex, a multiprotein complex that mediates the incorporation of iron-sulfur cluster into extramitochondrial Fe/S proteins (PubMed:22678361, PubMed:22678362, PubMed:23891004, PubMed:29848660). As a CIA complex component and in collaboration with CIAO1 and MMS19, binds to and facilitates the assembly of most cytosolic-nuclear Fe/S proteins (PubMed:23891004, PubMed:29848660). As part of the mitotic spindle-associated MMXD complex it plays a role in chromosome segregation, probably by facilitating iron-sulfur cluster assembly into ERCC2/XPD (PubMed:20797633). Together with MMS19, facilitates the transfer of Fe-S clusters to the motor protein KIF4A, which ensures proper localization of KIF4A to mitotic machinery components to promote the progression of mitosis (PubMed:29848660). |

## 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

ab249348 is the carrier-free version of ab166607.

**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** | FAM96B also known as Family with sequence similarity 96 member B is a small protein with a mass of approximately 23 kilodaltons. This protein is expressed in various human tissues with notable expression in the heart and skeletal muscle. FAM96B may play significant roles in cellular function due to its involvement in protein-protein interactions. Researchers study FAM96B to understand its role in cellular transport processes and regulation. |
| **Biological function summary** | FAM96B participates in the assembly and stabilization of cytosolic iron-sulfur cluster assembly machinery. It acts as a binding partner in the CIA complex (cytosolic iron-sulfur assembly). This complex is important for the maturation of cytosolic and nuclear iron-sulfur proteins which influences multiple cellular processes. The protein's interactions within the complex allow it to contribute to proper cellular iron homeostasis and genome stability. |
| **Pathways** | Several important cellular functions relate to the presence of FAM96B. The cytosolic iron-sulfur cluster assembly pathway is significant serving a role in iron homeostasis and DNA repair. FAM96B interacts with proteins such as CIA2B and MMS19 which are components of the CIA complex. These interactions are well-documented and they play a role in the broader network of cellular maintenance and repair pathways. |

| | |
|---|---|
| **Associated diseases and disorders** | FAM96B has been studied for its connection to cancer and neurodegenerative diseases. Abnormal expression or function of FAM96B may impact iron metabolism which is linked to these conditions. In cancer disrupted iron-sulfur proteins can affect cellular proliferation and apoptosis. FAM96B works closely with proteins like CIA2B and MMS19 which when dysregulated may contribute to disease progression. Researchers continue exploring these links to understand FAM96B's potential as a therapeutic target. |

## 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**

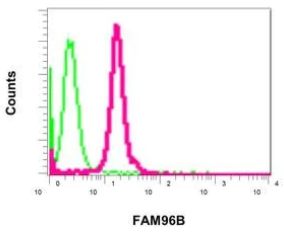
We do not recommend this combination. It is not covered by our product promise.

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.

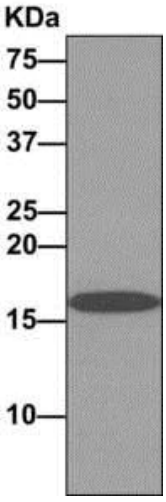
## 3 product images




### Flow Cytometry (Intracellular) - Anti-FAM96B antibody [EPR10178] - BSA and Azide free (ab249348)

FAM96B Flow Cytometry (Intracellular) staining using rabbit Anti-FAM96B antibody

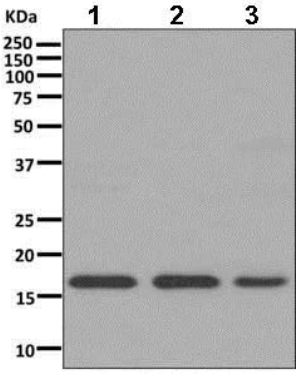
This data was developed using ab166607, the same antibody clone in a different buffer formulation.
Intracellular flow cytometrical analysis of permeabilized K562 cells with ab166607 antibody at 1/100 (red) compared to a rabbit IgG negative (green).




## Immunoprecipitation - Anti-FAM96B antibody [EPR10178] - BSA and Azide free (ab249348)

This data was developed using ab166607, the same antibody clone in a different buffer formulation.Western blot analysis on immunoprecipitation pellet from HeLa cell lysate using ab166607 and HRP-conjugated anti-rabbit IgG, which preferentially detects the non-reduced form of rabbit IgG. Predicted band size : 18 kDa.
All lanes:
Immunoprecipitation - Anti-FAM96B antibody [EPR10178] (ab166607)

Predicted band size: 18 kDa




## Western blot - Anti-FAM96B antibody [EPR10178] - BSA and Azide free (ab249348)

FAM96B Western blot staining using rabbit Anti-FAM96B antibody

This data was developed using ab166607, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-FAM96B antibody [EPR10178] (ab166607) at 1/1000 dilution

Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
K562 cell lysate at 10 µg

Lane 3:
Ramos cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 18 kDa

Observed band size: 18 kDa

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