abcam

**ab108611**

# Anti-EPF antibody [EPR4475]

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** | EPR4475 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 0.419 - 0.451 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## ICC/IF

**Not recommended**

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

## WB

### Tested

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

### Predicted

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

## IHC-P

### Not recommended

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

## Flow Cyt (Intra)

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/10 - 1/100 |
| **Notes** | ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |

### Predicted

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

## Target data

See full target information HSPE1

| | |
|---|---|
| **Function** | Co-chaperonin implicated in mitochondrial protein import and macromolecular assembly. Together with Hsp60, facilitates the correct folding of imported proteins. May also prevent misfolding and promote the refolding and proper assembly of unfolded polypeptides generated under stress conditions in the mitochondrial matrix (PubMed:11422376, PubMed:1346131, PubMed:7912672). The functional units of these chaperonins consist of heptameric rings of the large subunit Hsp60, which function as a back-to-back double ring. In a cyclic reaction, Hsp60 ring complexes bind one unfolded substrate protein per ring, followed by the binding of ATP and association with 2 heptameric rings of the co-chaperonin Hsp10. This leads to sequestration of the substrate protein in the inner cavity of Hsp60 where, for a certain period of time, it can fold undisturbed by other cell components. Synchronous hydrolysis of ATP in all Hsp60 subunits results in the dissociation of the chaperonin rings and the release of ADP and the folded substrate protein (Probable). |

## Storage

| | |
|---|---|
| **Shipped at conditions** | Conditional Ambient |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | -20°C |
| **Storage information** | Stable for 12 months at -20°C |

## Notes

**Species reactivity**
Mouse: We have preliminary internal testing data to indicate this antibody may not react with this 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** | EPF also known as Embryo Paracrine Factor is a protein with a mass of approximately 18-20 kDa. This protein primarily expresses in embryonic tissues and certain adult tissues with regeneration and repair abilities. EPF functions as a signaling molecule and plays a role in cellular communication influencing different cellular behaviors like proliferation differentiation and migration. |
| **Biological function summary** | EPF impacts multiple cellular processes during embryogenesis and tissue regeneration. It does not function as a part of a larger protein complex but interacts directly with surface receptors to initiate signal transduction pathways. EPF activities help in regulating cell cycle transitions balancing cell growth with apoptosis for proper tissue formation and healing. By mediating these activities EPF is critical for normal development and efficient repair processes. |
| **Pathways** | Several molecular networks engage with EPF to exert its influence. One of the primary pathways involving EPF is the Wnt signaling pathway which contributes to the regulation of gene expression cellular growth and differentiation. Through this pathway EPF interacts with proteins like β-catenin. Additionally EPF also associates with the PI3K/Akt pathway which further highlights its involvement in controlling cellular survival and growth dynamics. |
| **Associated diseases and disorders** | Abnormal EPF function is linked with cancer progression and regenerative disorders. Dysregulation of EPF can lead to uncontrolled cell proliferation and has been observed in certain cancers such as colorectal cancer. Furthermore impaired EPF signaling might affect wound healing processes leading to chronic wounds. During these disease processes EPF interacts with other important signaling molecules such as p53 in cancer to influence disease outcomes. |

## 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**

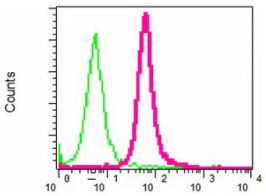
We do not recommend this combination. It is not covered by our product promise.

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.

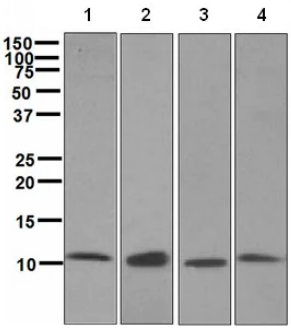
## 2 product images




### Flow Cytometry (Intracellular) - Anti-EPF antibody [EPR4475] (ab108611)

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

Intracellular flow cytometric analysis of permeabilized Jurkat cells using ab108611 at 1/10 (red) or a Rabbit IgG (negative) (green).




### Western blot - Anti-EPF antibody [EPR4475] (ab108611)

EPF Western blot staining using rabbit Anti-EPF antibody

All lanes:
Western blot - Anti-EPF antibody [EPR4475] (ab108611) at 1/1000 dilution

Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
HepG2 cell lysate at 10 µg

Lane 3:
Raji cell lysate at 10 µg

Lane 4:
Jurkat cell lysate at 10 µg

Predicted band size: 10 kDa

Observed band size: 11 kDa

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