abcam

ab244230

Anti-EPF antibody [EPR4475] - 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	EPR4475
Purification technique	Affinity purification Protein A
Concentration	0.995 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
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	-
Notes	-

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

Notes

ab244230 is the carrier-free version of ab108611.

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.

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	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

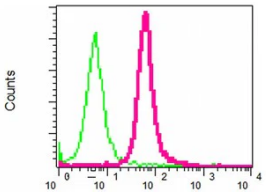
We do not recommend this combination. It is not covered by our product promise.

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.

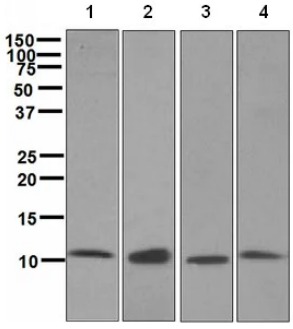
2 product images



Flow Cytometry (Intracellular) - Anti-EPF antibody [EPR4475] - BSA and Azide free (ab244230)

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

This data was developed using ab108611, the same antibody clone in a different buffer formulation.
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] - BSA and Azide free (ab244230)

EPF Western blot staining using rabbit Anti-EPF antibody

This data was developed using ab108611, the same antibody clone in a different buffer formulation.
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'.