abcam

ab185962

Anti-HSPA4 antibody [EPR14166]

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	EPR14166
Purification technique	Affinity purification Protein A
Concentration	1.019 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Mouse
Dilution info	1/1000 - 1/10000
Notes	-

Species	Rat

Dilution info	1/1000 - 1/10000
Notes	-

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

ICC/IF

Tested

Species	Human
Dilution info	1/250
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/200
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information HSPA4

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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	HSPA4 also known as Heat Shock Protein Family A Member 4 is a molecular chaperone involved in protein folding and stabilization during stress. This protein belongs to the heat shock protein family and has a molecular weight of approximately 70 kDa. HSPA4 is widely expressed across various tissues including the heart liver and brain. It operates within the cytoplasm and nucleus where it assists in protein homeostasis by preventing aggregation and misfolding of nascent polypeptides.
Biological function summary	HSPA4 plays a role in cellular stress responses and is part of the HSP70 chaperone complex. HSPA4 interacts with co-chaperones and other proteins to facilitate proper protein folding and degradation. It assists in the recovery of cells from thermal and oxidative stress. The protein ensures the stability of essential signal transduction proteins and supports protein quality control systems within the cell.
Pathways	HSPA4 integrates into the cellular stress response and protein degradation pathways. It engages with the ubiquitin-proteasome system aiding in the removal of damaged proteins. HSPA4 interacts with other heat shock proteins such as HSPA1A and HSPA5 coordinating stress response signals and maintaining cellular homeostasis. This involvement in protein maintenance links it to regulatory pathways that address protein misfolding and cellular repair processes.
Associated diseases and disorders	HSPA4 shows connections to neurodegenerative diseases and cancer. Its role in protein homeostasis suggests involvement in Alzheimer's disease as protein misfolding stands as an important pathological feature. In cancer HSPA4 is associated with cell proliferation and survival mechanisms. It interacts with oncogene products potentially contributing to tumor progression. Studies explore HSPA4 as a therapeutic target assessing its potential influence in disease modulation through its interactions with other stress proteins and pathways.

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.

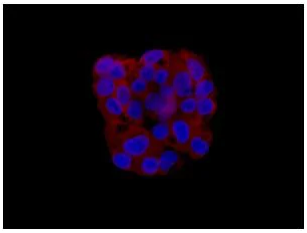
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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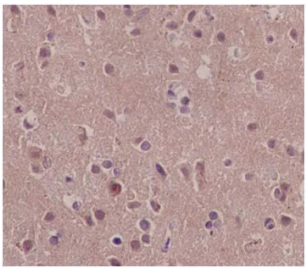
6 product images



Immunocytochemistry/ Immunofluorescence - Anti-HSPA4 antibody [EPR14166] (ab185962)

HSPA4 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-HSPA4 antibody

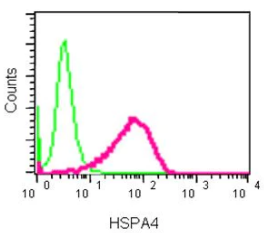
Immunofluorescence analysis of 4% paraformaldehyde-fixed HepG2 cells labeling HSPA4 with ab185962 at 1/250 dilution. Goat anti-rabbit IgG (Alexa Fluor® 555) at 1/200 dilution was used as the secondary antibody (red). Slide is counter stained with Dapi (blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HSPA4 antibody [EPR14166] (ab185962)

HSPA4 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-HSPA4 antibody

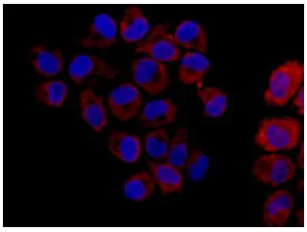
Immunohistochemical analysis of paraffin-embedded Human brain tissue labeling HSPA4 with ab185962 at 1/100 dilution followed by pre-diluted HRP-conjugated secondary antibody and counter-stained with Hematoxylin.
Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-HSPA4 antibody [EPR14166] (ab185962)

HSPA4 Flow Cytometry (Intracellular) staining using rabbit Anti-HSPA4 antibody

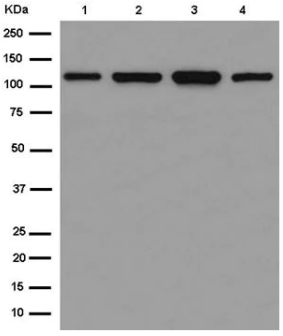
Intracellular flow cytometric analysis of 2% paraformaldehyde fixed HeLa cells labeling HSPA4with ab185962 at 1/200 dilution (red) compared with a rabbit monoclonal IgG isotype control (green). Goat anti rabbit IgG (FITC) at 1/150 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-HSPA4 antibody [EPR14166] (ab185962)

HSPA4 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-HSPA4 antibody

Immunofluorescence analysis of -20°C acetone-fixed HeLa cells labeling HSPA4 with ab185962 at 1/250 dilution. Goat anti-rabbit IgG (Alexa Fluor® 555) at 1/200 dilution was used as the secondary antibody (red). Slide is counter stained with Dapi (blue).



Western blot - Anti-HSPA4 antibody [EPR14166] (ab185962)

HSPA4 Western blot staining using rabbit Anti-HSPA4 antibody

All lanes:
Western blot - Anti-HSPA4 antibody [EPR14166] (ab185962) at 1/10000 dilution

Lane 1:
Human cerebellum lysate at 20 µg

Lane 2:
HepG2 cell lysate at 20 µg

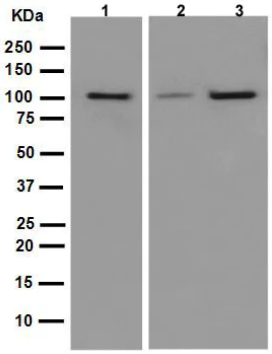
Lane 3:
K562 cell lysate at 20 µg

Lane 4:
HeLa cell lysate at 20 µg

Secondary

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

Predicted band size: 94 kDa



Western blot - Anti-HSPA4 antibody [EPR14166] (ab185962)

HSPA4 Western blot staining using rabbit Anti-HSPA4 antibody

All lanes:
Western blot - Anti-HSPA4 antibody [EPR14166] (ab185962) at 1/1000 dilution

Lane 1:
Mouse heart tissue lysate at 10 µg

Lane 2:
Rat brain tissue lysate at 10 µg

Lane 3:
Rat heart tissue lysate at 10 µg

Secondary

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

Predicted band size: 94 kDa

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