abcam

ab248579

Anti-ESE1 antibody [EPESER1] - BSA and Azide free

Recombinant | RabMAb | KO Validated

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	EPESER1
Purification technique	Affinity purification Protein A
Concentration	1.062 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

WB

Tested

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Target data

See full target information ELF3

Function	Transcriptional activator that binds and transactivates ETS sequences containing the consensus nucleotide core sequence GGA[AT]. Acts synergistically with POU2F3 to transactivate the SPRR2A promoter and with RUNX1 to transactivate the ANGPT1 promoter. Also transactivates collagenase, CCL20, CLND7, FLG, KRT8, NOS2, PTGS2, SPRR2B, TGFBR2 and TGM3 promoters. Represses KRT4 promoter activity. Involved in mediating vascular inflammation. May play an important role in epithelial cell differentiation and tumorigenesis. May be a critical downstream effector of the ERBB2 signaling pathway. May be associated with mammary gland development and involution. Plays an important role in the regulation of transcription with TATA-less promoters in preimplantation embryos, which is essential in preimplantation development (By similarity).

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

ab248579 is the carrier-free version of ab133621.
This antibody was developed as part of a collaboration with the lab of Jim Hu at the University of Toronto.

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	ESE1 also known as ETS transcription factor ELK3 is a critical transcription factor belonging to the ETS family. This protein weighs approximately 43 kDa. ESE1 is highly expressed in epithelial tissues such as skin lung and breast. It plays an essential role in regulating gene expression by binding to specific DNA sequences and influencing transcriptional processes.
Biological function summary	ESE1 functions as a transcription activator and impacts cellular differentiation proliferation and apoptosis. It is part of a larger transcriptional complex involving additional co-activators and co-repressors. This transcription factor facilitates the control of genes tied to cell growth and development making its activity significant for normal cellular function.
Pathways	ESE1 interacts within the MAPK signaling and TGF-beta pathways influencing cellular responses to external stimuli. In the MAPK pathway ESE1 associates with proteins such as ERK1/2 to transmit signals from the cell membrane to the nucleus affecting cell fate decisions. In the TGF-beta pathway it supports regulatory mechanisms that control cell proliferation and differentiation.
Associated diseases and disorders	Altered ESE1 expression is connected to breast cancer and psoriasis. In breast cancer ESE1 dysregulation may stimulate cancer cell growth and metastasis possibly through interaction with proteins like BRCA1 that are known for their roles in cell cycle regulation and DNA repair. In psoriasis changes in ESE1 function can lead to aberrant epidermal differentiation and inflammation further impacting the disease's progression.

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.

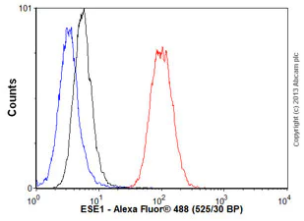
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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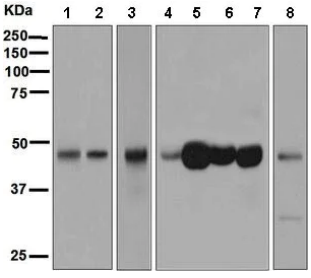
3 product images



Flow Cytometry (Intracellular) - Anti-ESE1 antibody [EPESER1] - BSA and Azide free (ab248579)

ESE1 Flow Cytometry (Intracellular) staining using rabbit Anti-ESE1 antibody

This data was developed using ab133621, the same antibody clone in a different buffer formulation.
Overlay histogram showing A431 cells stained with ab133621 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab133621, 1/10000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) (ab150077) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



Western blot - Anti-ESE1 antibody [EPESER1] - BSA and Azide free (ab248579)

This data was developed using ab133621, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-ESE1 antibody [EPESER1] (ab133621) at 1/1000 dilution

Lane 1:
Human uterus cell lysate at 10 µg

Lane 2:
Fetal lung cell lysate at 10 µg

Lane 3:
A431 cell lysate at 10 µg

Lane 4:
C6 cell lysate at 10 µg

Lane 5:
RAW 264.7 cell lysate at 10 µg

Lane 6:
PC12 cell lysate at 10 µg

Lane 7:
NIH3T3 cell lysate at 10 µg

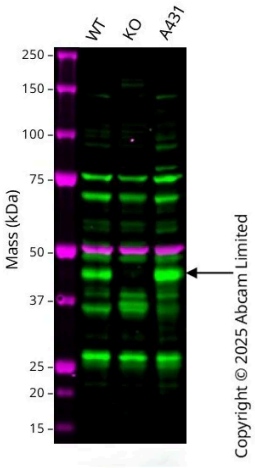
Lane 8:
SKBR-3 cell lysate at 10 µg

Secondary

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

Predicted band size: 41 kDa

Observed band size: 47 kDa



Western blot - Anti-ESE1 antibody [EPESER1] - BSA and Azide free (ab248579)

ESE1 Western blot staining using rabbit Anti-ESE1 antibody

This data was developed using ab133621, the same antibody clone in a different buffer formulation.
Western blot: Rabbit Monoclonal[EPESER1] to ESE1 ab133621 staining at 1/1000 dilution, shown in green; Mouse anti alpha Tubulin (ab7291) loading control staining at 1/20,000 dilution, shown in magenta. A band was observed at 41 kDa in Wild-type A549 cell lysates with no signal observed at this size in ELF3 knockout A549 cell line. To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3pc Milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20,000 dilution.

All lanes:
Western blot - Anti-ESE1 antibody [EPESER1] (ab133621) at 1/1000 dilution

Lane 1:
Wild-type A549 at 20 µg

Lane 2:
ELF3 knockout A549 at 20 µg

Lane 3:
A431 at 20 µg

Secondary

All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 41 kDa

Observed band size: 41 kDa

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