abcam

ab133621

Anti-ESE1 antibody [EPESER1]

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 50% Tissue culture supernatant, 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	EPESER1
Purification technique	Affinity purification Protein A
Concentration	0.546 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	Rat
Dilution info	1/1000 - 1/10000
Notes	-

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

Species	Human
Dilution info	1/1000 - 1/10000
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	1/100 - 1/10000

Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Rat, Mouse
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	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

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.

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.

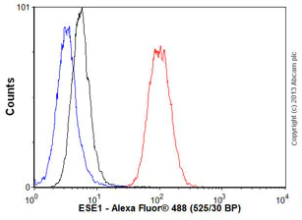
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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Terms & Conditions.

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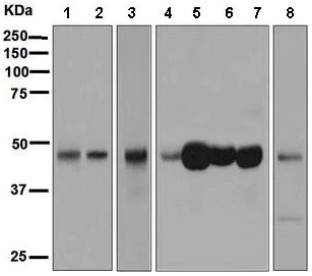
3 product images



Flow Cytometry (Intracellular) - Anti-ESE1 antibody [EPESER1] (ab133621)

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

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 >5000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



Western blot - Anti-ESE1 antibody [EPESER1] (ab133621)

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

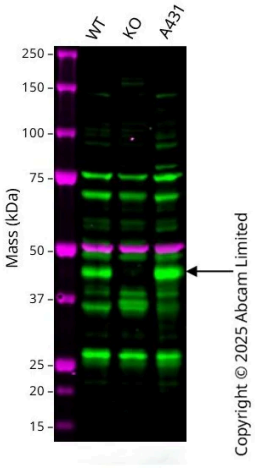
Lane 8:
SKBR-3 cell lysate at 10 µg

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] (ab133621)

ESE1 Western blot staining using rabbit Anti-ESE1 antibody

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'.