abcam

ab133288

Anti-EWSR1/EWS antibody [EPR4647]

Recombinant | RabMAb | Advanced Validation | 20ul selling size

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	EPR4647
Purification technique	Affinity purification Protein A
Concentration	0.892 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	1/250 - 1/500
Notes	-

Species	Rat

Dilution info	1/250 - 1/500
Notes	-

Species	Human
Dilution info	1/250 - 1/500
Notes	-

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/10000 - 1/50000
Notes	-

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

Expected

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

ICC/IF

Tested

Species	Human
Dilution info	1/500 - 1/1000
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

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

ChIC/CUT&RUN-seq

Tested

Species	Human
Dilution info	5 µg
Notes	-

Expected

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

Notes	-

Target data

See full target information EWSR1

Function	Binds to ssRNA containing the consensus sequence 5'-AGGUAA-3' (PubMed:21256132). Might normally function as a transcriptional repressor (PubMed:10767297). EWS-fusion-proteins (EFPS) may play a role in the tumorigenic process. They may disturb gene expression by mimicking, or interfering with the normal function of CTD-POLII within the transcription initiation complex. They may also contribute to an aberrant activation of the fusion protein target genes.

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

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	The EWS protein also known as EWSR1 or 2'1b1' comes from the EWSR1 gene. It is a part of the TET family of proteins and has a molecular weight of about 68 kDa. EWS is expressed widely in human tissues with high levels in the brain gonads and skeletal muscle. The protein contains an RNA-binding domain and amino acid repeats which allow it to interact with other proteins and RNA molecules.
Biological function summary	The EWS protein plays roles in various cellular processes such as transcription and RNA splicing. It can participate in forming different protein complexes which influence its function. EWS serves as a cofactor for several transcription factors and it is important in regulating the expression of genes involved in cell cycle progression and differentiation. The protein’s interaction with RNA and other molecules highlights its multifunctional nature within cellular environments.
Pathways	EWS engages in pathways like the regulation of transcription and RNA processing. It closely associates with proteins involved in gene expression surveillance such as the RNA polymerase II which is significant for transcription activities. EWS partners with proteins such as FUS and TAF15 which are essential parts of transcription regulation networks. These interactions place EWS in a central role in cellular regulatory machinery.
Associated diseases and disorders	EWS is notably linked to Ewing sarcoma and neurodegenerative diseases. In Ewing sarcoma EWS forms fusion proteins like EWS-FLI1 by translocation events which lead to tumor formation. This fusion protein acts abnormally in transcription regulation driving oncogenic pathways. EWS's interaction with proteins like FUS and TAF15 also relate it to certain neurodegenerative conditions indicating its importance in both cancer and neurobiology.

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

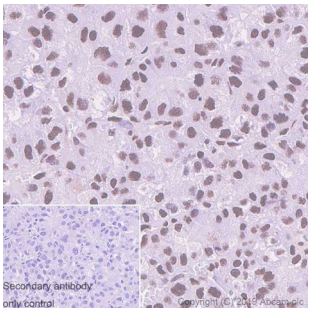
We do not recommend this combination. It is not covered by our product promise.

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.

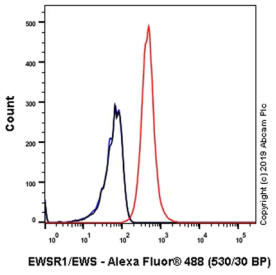
13 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EWSR1/EWS antibody [EPR4647] (ab133288)

EWSR1/EWS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-EWSR1/EWS antibody

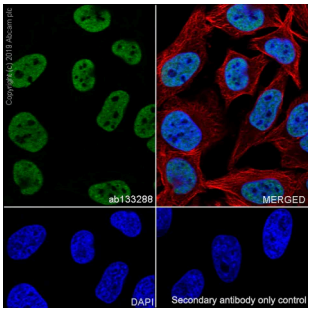
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver carcinoma tissue sections labeling EWSR1/EWS with purified ab133288 at 1:500 dilution (1.79 µg/ml). Heat mediated antigen retrieval was performed using Bond ™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Flow Cytometry (Intracellular) - Anti-EWSR1/EWS antibody [EPR4647] (ab133288)

EWSR1/EWS Flow Cytometry (Intracellular) staining using rabbit Anti-EWSR1/EWS antibody

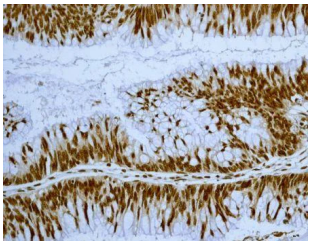
Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling EWSR1/EWS with purified ab133288 at 1/100 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry/ Immunofluorescence - Anti-EWSR1/EWS antibody [EPR4647] (ab133288)

EWSR1/EWS Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-EWSR1/EWS antibody

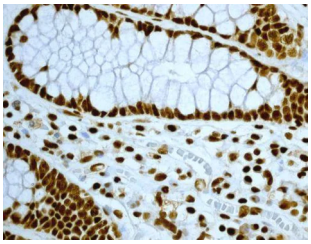
Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling EWSR1/EWS with purified ab133288 at 1:500 dilution (1.79 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EWSR1/EWS antibody [EPR4647] (ab133288)

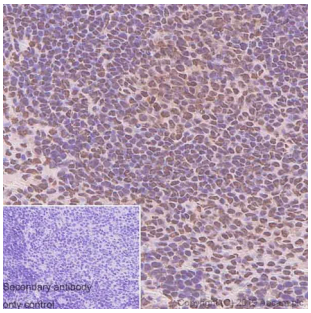
EWSR1/EWS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-EWSR1/EWS antibody

Immunohistochemical analysis of paraffin-embedded Human colonic adenocarcinoma tissue labelling EWSR1/EWS with unpurified ab133288 at 1/250 dilution.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EWSR1/EWS antibody [EPR4647] (ab133288)

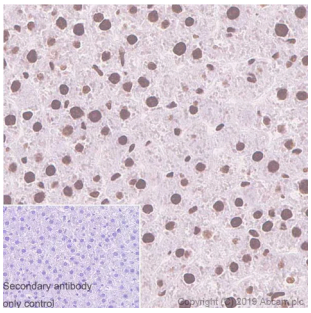
Immunohistochemical analysis of paraffin-embedded Human colon tissue labelling EWSR1/EWS with unpurified ab133288 at 1/250 dilution.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EWSR1/EWS antibody [EPR4647] (ab133288)

EWSR1/EWS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-EWSR1/EWS antibody

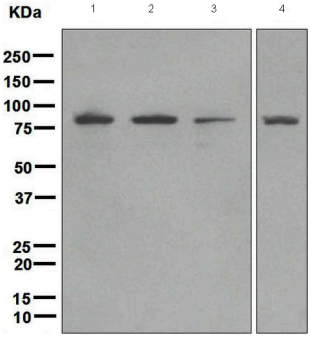
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse spleen tissue sections labeling EWSR1/EWS with purified ab133288 at 1:500 dilution (1.79 µg/ml). Heat mediated antigen retrieval was performed using Bond ™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EWSR1/EWS antibody [EPR4647] (ab133288)

EWSR1/EWS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-EWSR1/EWS antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat liver tissue sections labeling EWSR1/EWS with purified ab133288 at 1:500 dilution (1.79 µg/ml). Heat mediated antigen retrieval was performed using Bond ™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-EWSR1/EWS antibody [EPR4647] (ab133288)

All lanes:
Western blot - Anti-EWSR1/EWS antibody [EPR4647] (ab133288) at 1/10000 dilution

Lane 1:
K562 cell lysate at 10 µg

Lane 2:
HeLa cell lysate at 10 µg

Lane 3:
Jurkat cell lysate at 10 µg

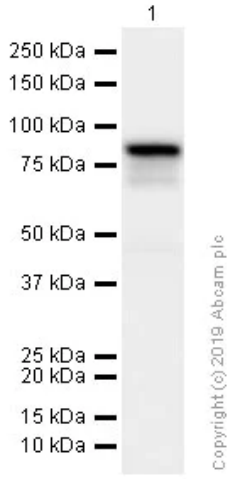
Lane 4:

F9 cell lysate at 10 µg

Secondary

All lanes:
Goat Anti-rabbit HRP at 1/2000 dilution

Predicted band size: 68 kDa



Western blot - Anti-EWSR1/EWS antibody [EPR4647] (ab133288)

The molecular weight observed is consistent with what has been described in PMID: 30354839
All lanes:
Western blot - Anti-EWSR1/EWS antibody [EPR4647] (ab133288) at 1/10000 dilution

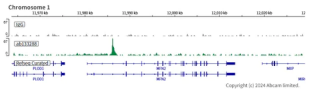
All lanes:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 68 kDa

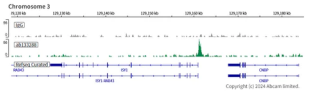
Observed band size: 90 kDa



ChIC/CUT&RUN sequencing - Anti-EWSR1/EWS antibody [EPR4647] (ab133288)

ChIC/CUT&RUN was performed using a pAG-MNase at a final concentration of 700 ng/mL, 2.5 x 10^5 A-673 (human muscle Ewings sarcoma cell line) cells and 5 µg of ab133288 [EPR4647]. The resulting DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 10 million reads. The negative IgG control ab172730 is also shown.

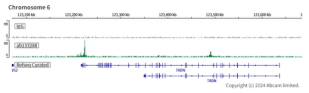
The University of Geneva owns patents relevant to ChIC (Chromatin Immuno-Cleavage) methods.



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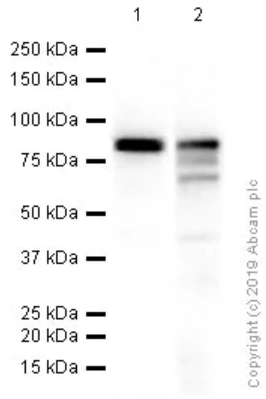
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Western blot - Anti-EWSR1/EWS antibody [EPR4647] (ab133288)

EWSR1/EWS Western blot staining using rabbit Anti-EWSR1/EWS antibody

The molecular weight observed is consistent with what has been described in PMID: 30354839
All lanes:
Western blot - Anti-EWSR1/EWS antibody [EPR4647] (ab133288) at 1/5000 dilution

Lane 1:
Mouse brain lysates at 15 µg

Lane 2:
Rat brain lysates at 15 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 68 kDa

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