


Product datasheet

Anti-EWSR1/EWS antibody ab153719

8 Images

Overview

Product name	Anti-EWSR1/EWS antibody
Description	Rabbit polyclonal to EWSR1/EWS
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human Predicted to work with: Chicken, Cow 
Immunogen	Recombinant fragment corresponding to Human EWSR1/EWS aa 1-224. Database link: Q01844
Positive control	WB: A549 whole cell lysate. HEK-293T, HeLa and HepG2 whole cell extracts. IHC-P: Human cal27 xenograft, rat fore brain, mouse testis, mouse prostate. ICC/IF: HeLa cells.
General notes	This product was previously labelled as EWSR1

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 1.21% Tris, 0.75% Glycine, 20% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab153719** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/3000. Predicted molecular weight: 38 kDa.
IHC-P		1/100 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/100 - 1/1000.

Target

Function	Might normally function as a repressor. 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.
Tissue specificity	Ubiquitous.
Involvement in disease	Defects in EWSR1 are a cause of Ewing sarcoma (ES) [MIM:612219]. A highly malignant, metastatic, primitive small round cell tumor of bone and soft tissue that affects children and adolescents. It belongs to the Ewing sarcoma family of tumors, a group of morphologically heterogeneous neoplasms that share the same cytogenetic features. They are considered neural tumors derived from cells of the neural crest. Ewing sarcoma represents the less differentiated form of the tumors. Note=Chromosomal aberrations involving EWSR1 are found in patients with Ewing sarcoma. Translocation t(11;22)(q24;q12) with FLI1; translocation t(7;22)(p22;q12) with ETV1; translocation t(21;22)(q22;q12) with ERG; translocation t(9;22)(q22-31;q11-12) with NR4A3. Translocation t(2;21;22)(q23;q22;q12) that forms a EWSR1-FEV fusion protein with potential oncogenic activity. Note=A chromosomal aberration involving EWSR1 is associated with desmoplastic small round cell tumor (DSRCT). Translocation t(11;22)(p13;q12) with WT1. Note=A chromosomal aberration involving EWSR1 is associated with malignant melanoma of soft parts (MMSP). Translocation t(12;22)(q13;q12) with ATF-1. Malignant melanoma of soft

parts, also known as soft tissue clear cell sarcoma, is a rare tumor developing in tendons and aponeuroses.

Note=A chromosomal aberration involving EWSR1 is associated with small round cell sarcoma. Translocation t(11;22)(p36.1;q12) with PATZ1.

Defects in EWSR1 may be a cause of angiomatoid fibrous histiocytoma (AFH) [MIM:612160]. A distinct variant of malignant fibrous histiocytoma that typically occurs in children and adolescents and is manifest by nodular subcutaneous growth. Characteristic microscopic features include lobulated sheets of histiocyte-like cells intimately associated with areas of hemorrhage and cystic pseudovascular spaces, as well as a striking cuffing of inflammatory cells, mimicking a lymph node metastasis. Note=Chromosomal aberrations involving EWSR1 are found in patients with angiomatoid fibrous histiocytoma. Translocation t(12;22)(q13;q12) with ATF1 generates a chimeric EWSR1/ATF1 protein. Translocation t(2;22)(q33;q12) with CREB1 generates a EWSR1/CREB1 fusion gene that is most common genetic abnormality in this tumor type.

Note=EFPS arise due to chromosomal translocations in which EWSR1 is fused to a variety of cellular transcription factors. EFPS are very potent transcriptional activators dependent on the EAD and a C-terminal DNA-binding domain contributed by the fusion partner. The spectrum of malignancies associated with EFPS are thought to arise via EFP-induced transcriptional deregulation, with the tumor phenotype specified by the EWSR1 fusion partner and cell type. Transcriptional repression of the transforming growth factor beta type II receptor (TGF beta RII) is an important target of the EWS-FLI1, EWS-ERG, or EWS-ETV1 oncogene.

Sequence similarities

Belongs to the RRM TET family.
Contains 1 IQ domain.
Contains 1 RanBP2-type zinc finger.
Contains 1 RRM (RNA recognition motif) domain.

Domain

EWS activation domain (EAD) functions as a potent activation domain in EFPS. EWSR1 binds POLR2C but not POLR2E or POLR2G, whereas the isolated EAD binds POLR2E and POLR2G but not POLR2C. Cis-linked RNA-binding domain (RBD) can strongly and specifically repress trans-activation by the EAD.

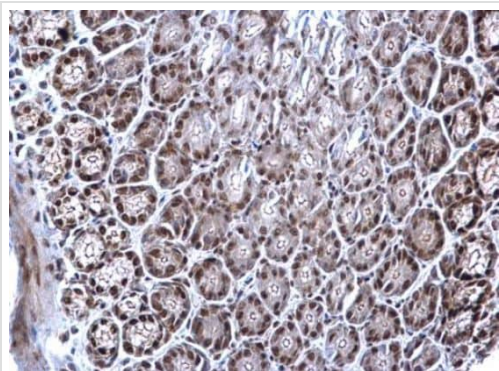
Post-translational modifications

Phosphorylated; calmodulin-binding inhibits phosphorylation of Ser-266.
Highly methylated on arginine residues. Methylation is mediated by PRMT1 and, at lower level by PRMT8.

Cellular localization

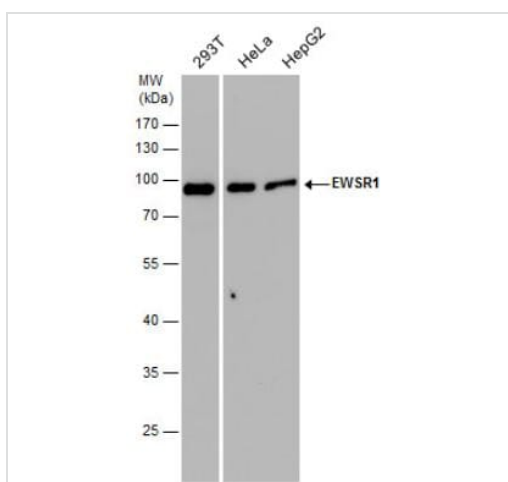
Nucleus. Cytoplasm. Cell membrane. Relocates from cytoplasm to ribosomes upon PTK2B/FAK2 activation.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EWSR1/EWS antibody (ab153719)

Paraffin embedded mouse testis tissue stained for EWSR1 using ab153719 at 1/500 dilution in immunohistochemical analysis.



Western blot - Anti-EWSR1/EWS antibody (ab153719)

All lanes : Anti-EWSR1/EWS antibody (ab153719) at 1/1000 dilution

Lane 1 : HEK-293T whole cell extract

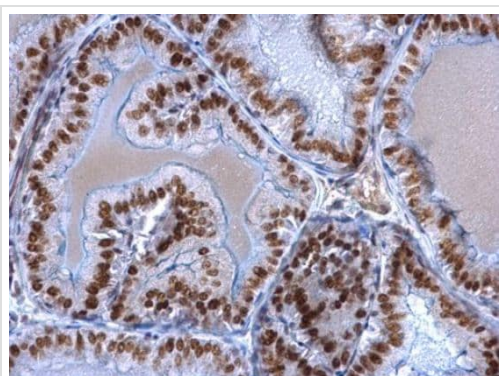
Lane 2 : HeLa whole cell extract

Lane 3 : HepG2 whole cell extract

Lysates/proteins at 30 µg per lane.

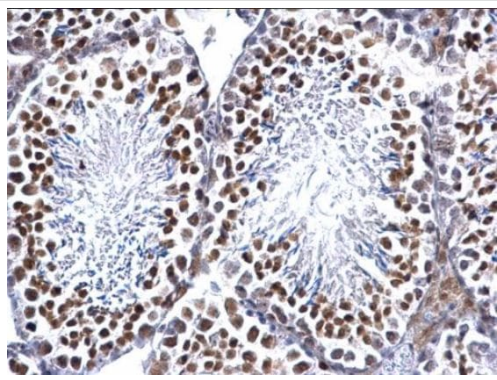
Predicted band size: 38 kDa

10% SDS-PAGE



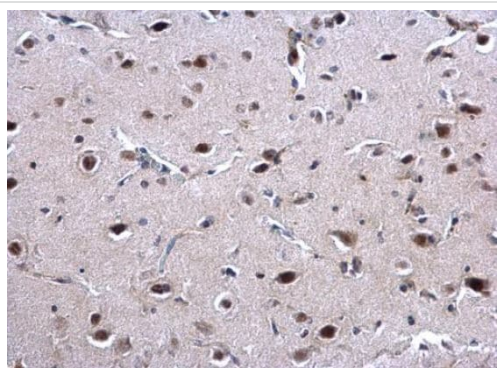
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EWSR1/EWS antibody (ab153719)

Paraffin embedded mouse prostate tissue stained for EWSR1 using ab153719 at 1/500 dilution in immunohistochemical analysis.



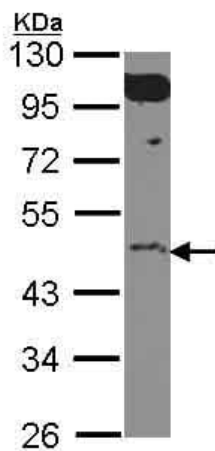
Paraffin embedded mouse testis tissue stained for EWSR1 using ab153719 at 1/500 dilution in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EWSR1/EWS antibody (ab153719)



Paraffin embedded rat fore brain tissue stained for EWSR1 using ab153719 at 1/500 dilution in immunohistochemical analysis.

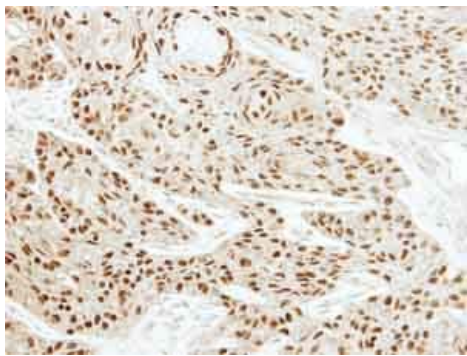
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EWSR1/EWS antibody (ab153719)



Anti-EWSR1/EWS antibody (ab153719) at 1/1000 dilution + A549 whole cell lysate at 30 μ g

Predicted band size: 38 kDa

Western blot - Anti-EWSR1/EWS antibody (ab153719)



Immunohistochemical analysis of paraffin-embedded Human cal27 xenograft tissue labeling EWSR1/EWS with ab153719 at 1/100 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EWSR1/EWS antibody (ab153719)



Immunofluorescent analysis of paraformaldehyde-fixed HeLa cells labeling EWSR1/EWS with ab153719 at 1/500 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-EWSR1/EWS antibody (ab153719)

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