abcam

Product datasheet

Anti-CSL4 antibody [EPR13525] ab181167

Recombinant RabMAb

1 References 7 Images

Overview

Product name	Anti-CSL4 antibody [EPR13525]
Description	Rabbit monoclonal [EPR13525] to CSL4
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IHC-P, ICC/IF, IP
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	293T, Jurkat or HepG2 lysate, Human breast carcinoma tissue, HepG2 or K562 cells.
General notes	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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

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 long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR13525
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab181167 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
Flow Cyt (Intra)		1/90. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/1000 - 1/10000. Predicted molecular weight: 21 kDa.
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/100 - 1/250.
IP		1/40 - 1/60.

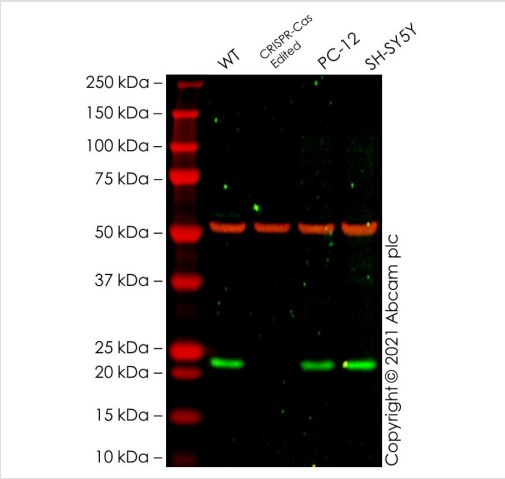
Target

Function Non-catalytic component of the RNA exosome complex which has 3'->5' exoribonuclease activity and participates in a multitude of cellular RNA processing and degradation events. In the nucleus, the RNA exosome complex is involved in proper maturation of stable RNA species such as rRNA, snRNA and snoRNA, in the elimination of RNA processing by-products and non-coding 'pervasive' transcripts, such as antisense RNA species and promoter-upstream transcripts (PROMPTs), and of mRNAs with processing defects, thereby limiting or excluding their export to the cytoplasm. The RNA exosome may be involved in Ig class switch recombination (CSR) and/or Ig variable region somatic hypermutation (SHM) by targeting AICDA deamination activity to transcribed dsDNA substrates. In the cytoplasm, the RNA exosome complex is involved in general mRNA turnover and specifically degrades inherently unstable mRNAs containing AU-rich elements (AREs) within their 3' untranslated regions, and in RNA surveillance pathways, preventing translation of aberrant mRNAs. It seems to be involved in degradation of histone mRNA. The catalytic inactive RNA exosome core complex of 9 subunits (Exo-9) is proposed to play a pivotal role in the binding and presentation of RNA for ribonucleolysis, and to serve as a scaffold for the association with catalytic subunits and accessory proteins or complexes. EXOSC1 as peripheral part of the Exo-9 complex stabilizes the hexameric ring of RNase PH-domain subunits through contacts with EXOSC6 and EXOSC8.

Sequence similarities Contains 1 S1 motif domain.

Cellular localization Nucleus > nucleolus. Nucleus. Cytoplasm.

Images



Western blot - Anti-CSL4 antibody [EPR13525] (ab181167)

All lanes : Anti-CSL4 antibody [EPR13525] (ab181167) at 1/1000 dilution

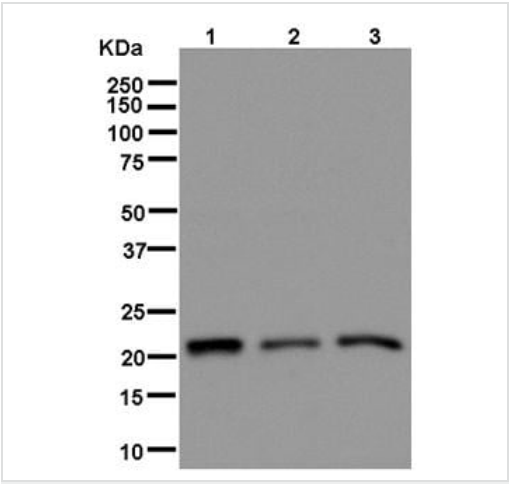
Lane 1 : Wild-type HeLa cell lysate
Lane 2 : EXOSC1 CRISPR-Cas9 edited HeLa cell lysate
Lane 3 : PC-12 cell lysate
Lane 4 : SH-SY5Y cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 21 kDa
Observed band size: 22 kDa

False colour image of Western blot: Anti-CSL4 antibody [EPR13525] staining at 1/1000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] (**ab7291**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab181167 was shown to bind specifically to CSL4. A band was observed at 22 kDa in wild-type HeLa cell lysates with no signal observed at this size in EXOSC1 CRISPR-Cas9 edited cell line **ab265194** (EXOSC1 CRISPR-Cas9 edited cell lysate **ab257945**). The band observed in the CRISPR-Cas9 edited lysate lane above 22 kDa is likely to represent CSL4 with an insertion. This has not been investigated further and the functional properties of the gene product have not been determined. To generate this image, wild-type and EXOSC1 CRISPR-Cas9 edited HeLa cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3% 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 IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) at 1/20000 dilution.



Western blot - Anti-CSL4 antibody [EPR13525] (ab181167)

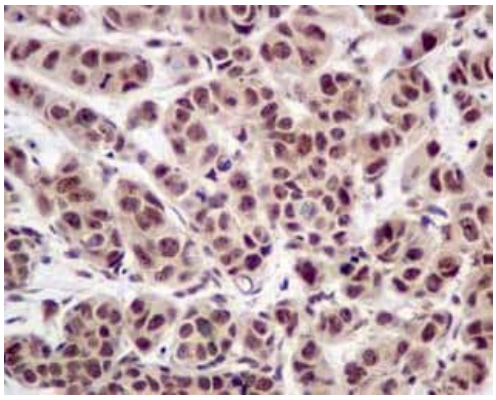
All lanes : Anti-CSL4 antibody [EPR13525] (ab181167) at 1/2000 dilution

Lane 1 : 293T cell lysate
Lane 2 : Jurkat cell lysate
Lane 3 : HepG2 cell lysate

Lysates/proteins at 20 µg per lane.

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

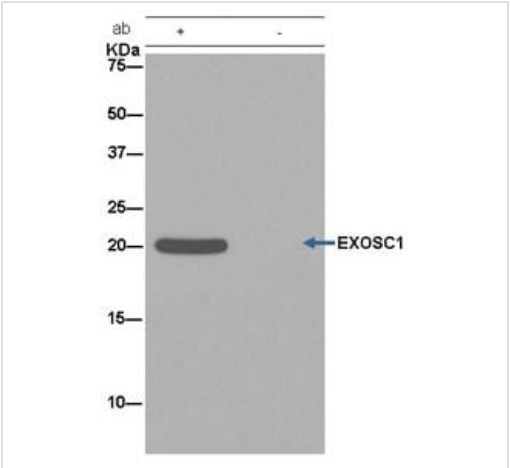
Predicted band size: 21 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CSL4 antibody [EPR13525] (ab181167)

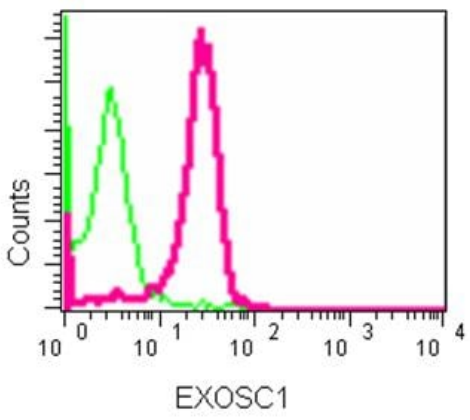
Immunohistochemical analysis of paraffin embedded Human breast carcinoma tissue labeling CSL4 with ab181167 at a 1/100 dilution. Prediluted HRP Polymer for Rabbit IgG secondary used. Counterstained with Hematoxylin.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



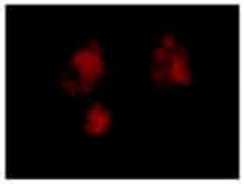
Immunoprecipitation - Anti-CSL4 antibody [EPR13525] (ab181167)

Detection of Human CSL4 by Western Blot of Immunoprecipitate. 293T whole cell lysate (lane 1) and a negative control (lane 2) loaded, ab181167 used for blotting immunoprecipitated CSL4 at a 1/50 dilution. Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG secondary used at a 1/1500 dilution.



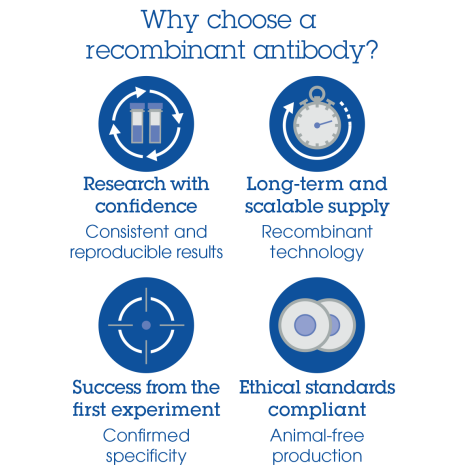
Flow Cytometry (Intracellular) - Anti-CSL4 antibody [EPR13525] (ab181167)

Intracellular Flow Cytometry analysis of K562 cells using ab181167at a 1/90 dilution (red) or a Rabbit monoclonal IgG (negative) (green). Goat anti rabbit IgG (FITC) secondary used at a 1/150 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-CSL4 antibody [EPR13525] (ab181167)

Immunofluorescence analysis of HepG2 cells (fixative 4% paraformaldehyde) labeling CSL4 with ab181167 at a 1/250 dilution. Goat anti rabbit IgG (Alexa Fluor® 555) secondary used at a 1/200 diution.



Anti-CSL4 antibody [EPR13525] (ab181167)

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