abcam

Product datasheet

Anti-CABLES1 antibody ab75535

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Overview

Product name	Anti-CABLES1 antibody
Description	Rabbit polyclonal to CABLES1
Host species	Rabbit
Specificity	From Jan 2024, QC testing of replenishment batches of this polyclonal changed. All tested and expected application and reactive species combinations are still covered by our Abcam product promise. However, we no longer test all applications. For more information on a specific batch, please contact our Scientific Support who will be happy to help.
Tested applications	**Suitable for:** ICC/IF, WB, IHC-P
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Zebrafish
Immunogen	Synthetic peptide corresponding to Human CABLES1 aa 600 to the C-terminus (C terminal) conjugated to keyhole limpet haemocyanin. (Peptide available as **ab87824**)
Positive control	This antibody gave a positive signal in Human Brain and Skeletal Muscle Tissue Lysates, and in the following whole cell lysates: SHSY-5Y; SK N SH; SK N BE; HeLa.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. 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, along with publications, 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: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS

	Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab75535 in the following tested applications.

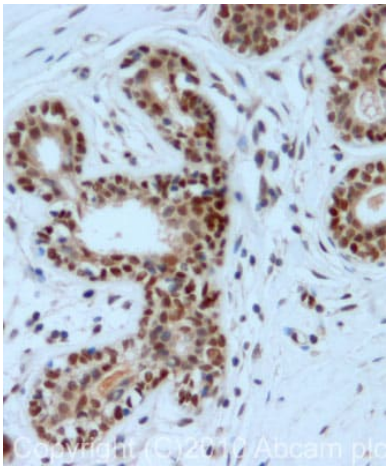
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 1 µg/ml.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 68 kDa (predicted molecular weight: 68 kDa).
IHC-P		Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Target

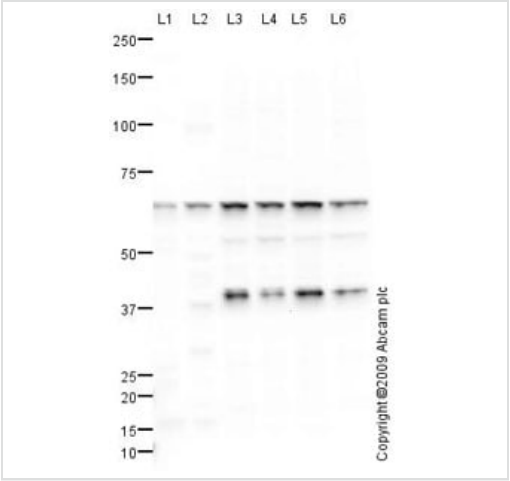
Function	Cyclin-dependent kinase binding protein. Enhances cyclin-dependent kinase tyrosine phosphorylation by nonreceptor tyrosine kinases, such as that of CDK5 by activated ABL1, which leads to increased CDK5 activity and is critical for neuronal development, and that of CDK2 by WEE1, which leads to decreased CDK2 activity and growth inhibition. Positively affects neuronal outgrowth. Plays a role as a regulator for p53/p73-induced cell death.
Tissue specificity	Expressed in breast, pancreas, colon, head and neck (at protein level). Strongly decreased in more than half of cases of atypical endometrial hyperplasia and in more than 90% of endometrial cancers.
Sequence similarities	Belongs to the cyclin family.
Developmental stage	Expression in the endometrial epithelium fluctuates during the menstrual cycle, being greater during the secretory phase when compared with the proliferative phase.
Post-translational modifications	Phosphorylated on Ser-313 by CCNE1/CDK3. Phosphorylated on serine/threonine residues by CDK5 and on tyrosine residues by ABL1. Also phosphorylated in vitro by CCNA1/CDK2, CCNE1/CDK2, CCNA1/CDK3 and CCNE1/CDK3.
Cellular localization	Nucleus. Cytoplasm. Located in the cell body and proximal region of the developing axonal shaft of immature neurons. Located in axonal growth cone, but not in the distal part of the axon shaft or in dendritic growth cone of mature neurons.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CABLES1 antibody (ab75535)

IHC image of CABLES1 staining in Human Breast Carcinoma formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab75535, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Western blot - Anti-CABLES1 antibody (ab75535)

All lanes : Anti-CABLES1 antibody (ab75535) at 1 µg/ml

Lane 1 : Human brain tissue lysate - total protein (**ab29466**)
Lane 2 : Human skeletal muscle tissue lysate - total protein (**ab29330**)
Lane 3 : SHSY-5Y (Human neuroblastoma cell line) Whole Cell Lysate
Lane 4 : SK N SH (Human neuroblastoma) Whole Cell Lysate
Lane 5 : SK N BE (Human neuroblastoma) Whole Cell Lysate
Lane 6 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

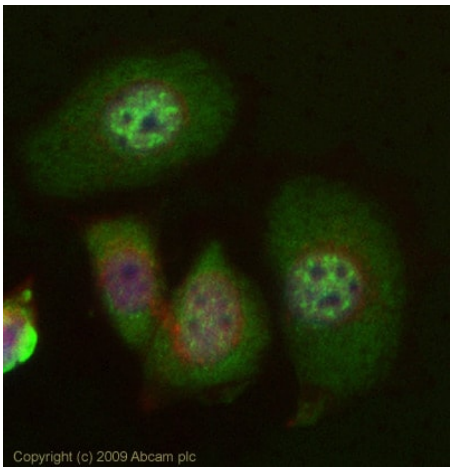
Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 68 kDa
Observed band size: 68 kDa
Additional bands at: 42 kDa (possible isoform)

This antibody is predicted to cross react with both isoform 1 (68 kDa) and isoform 2 (42 kDa) of CABLES1. We believe that the band observed at 42 kDa corresponds to isoform 2.



Immunocytochemistry/ Immunofluorescence - Anti-CABLES1 antibody (ab75535)

ICC/IF image of ab75535 stained MCF-7 cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal Goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab75535, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 Goat anti-Rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM. This antibody also gave a positive result in 4% PFA fixed (10 min) HEK293, HepG2 cells at 1µg/ml

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