


Product datasheet

Anti-Kindlin-1 antibody ab68041

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Overview

Product name	Anti-Kindlin-1 antibody
Description	Rabbit polyclonal to Kindlin-1
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, IHC-P, WB
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Cow, Xenopus laevis, Non human primates 
Immunogen	Synthetic peptide corresponding to Human Kindlin-1 aa 650 to the C-terminus (C terminal) conjugated to keyhole limpet haemocyanin. (Peptide available as ab69694 , ab69695 , ab69702)
General notes	<p>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.</p> <p>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</p>

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 ab68041 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 5 µg/ml.
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 77 kDa (predicted molecular weight: 77 kDa).

Target

Function

Involved in cell adhesion. Contributes to integrin activation. When coexpressed with talin, potentiates activation of ITGA2B. Required for normal keratinocyte proliferation. Required for normal polarization of basal keratinocytes in skin, and for normal cell shape. Required for normal adhesion of keratinocytes to fibronectin and laminin, and for normal keratinocyte migration to wound sites. May mediate TGF-beta 1 signaling in tumor progression.

Tissue specificity

Expressed in brain, skeletal muscle, kidney, colon, adrenal gland, prostate, and placenta. Weakly or not expressed in heart, thymus, spleen, liver, small intestine, bone marrow, lung and peripheral blood leukocytes. Overexpressed in some colon and lung tumors. In skin, it is localized within the epidermis and particularly in basal keratinocytes. Not detected in epidermal melanocytes and dermal fibroblasts.

Involvement in disease

Defects in FERMT1 are the cause of Kindler syndrome (KINDS) [MIM:173650]. An autosomal recessive skin disorder characterized by skin blistering, photosensitivity, progressive poikiloderma, and extensive skin atrophy. Additional clinical features include gingival erosions, ocular, esophageal, gastrointestinal and urogenital involvement, and an increased risk of mucocutaneous malignancy. Note=Although most FERMT1 mutations are predicted to lead to premature termination of translation, and to loss of FERMT1 function, significant clinical variability is observed among patients. There is an association of FERMT1 missense and in-frame deletion mutations with milder disease phenotypes, and later onset of complications (PubMed:21936020).

Sequence similarities

Belongs to the kindlin family.
Contains 1 FERM domain.
Contains 1 PH domain.

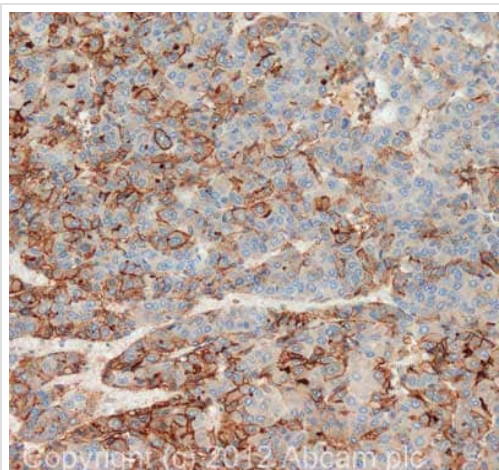
Domain

The FERM domain is not correctly detected by PROSITE or Pfam techniques because it contains the insertion of a PH domain. The FERM domain contains the subdomains F1, F2 and F3. It is preceded by a F0 domain with a ubiquitin-like fold. The F0 domain is required for integrin activation and for localization at focal adhesions.

Cellular localization

Cytoplasm > cytoskeleton. Cell junction > focal adhesion. Cell projection > ruffle membrane. Constituent of focal adhesions. Localized at the basal aspect of skin keratinocytes, close to the cell membrane. Colocalizes with filamentous actin. Upon TGFB1 treatment, it localizes to membrane ruffles.

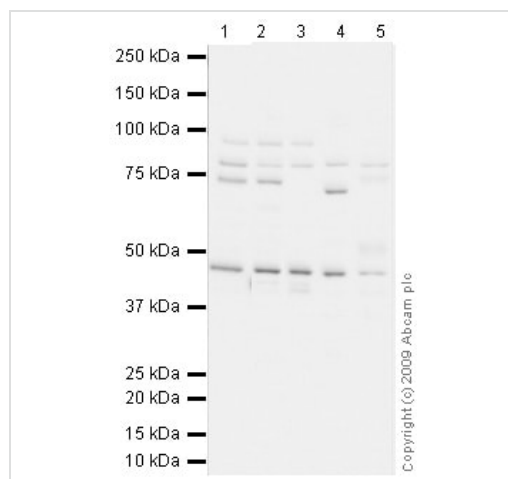
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Kindlin-1 antibody (ab68041)

IHC image of Kindlin-1 staining in human liver 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 ab68041, 5µg/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.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Western blot - Anti-Kindlin-1 antibody (ab68041)

All lanes : Anti-Kindlin-1 antibody (ab68041) at 1 µg/ml

Lane 1 : Jurkat Whole Cell Lysate - Staurosporine Treated (24hr, 500nM)

Lane 2 : TE 671 (Human Rhabdomyosarcoma) Whole Cell Lysate

Lane 3 : Y79 (Human retinoblastoma cell line) Whole Cell Lysate

Lane 4 : MEF1 (Mouse embryonic fibroblast cell line) Whole Cell Lysate

Lane 5 : Hela Whole Cell Lysate - Staurosporine Treated (24hr, 500nM)

Lysates/proteins at 10 µg per lane.

Secondary

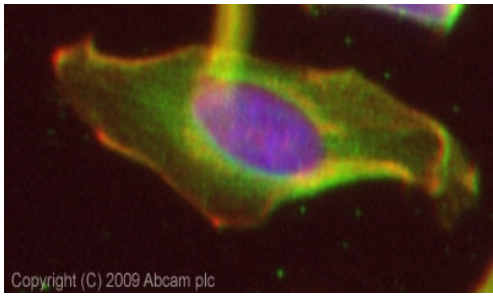
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP)

Performed under reducing conditions.

Predicted band size: 77 kDa

Observed band size: 77 kDa

Additional bands at: 45 kDa, 74 kDa. We are unsure as to the identity of these extra bands.



Immunocytochemistry/ Immunofluorescence - Anti-Kindlin-1 antibody (ab68041)

ICC/IF image of ab68041 stained HeLa 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 (ab68041, 5µg/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.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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