abcam

Product datasheet

Anti-NEDD4-2 antibody ab46521

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Overview

Product name	Anti-NEDD4-2 antibody
Description	Rabbit polyclonal to NEDD4-2
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, ICC/IF, WB
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
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.
Purity	Whole antiserum
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee	Our **Abpromise guarantee** covers the use of ab46521 in the following tested applications.

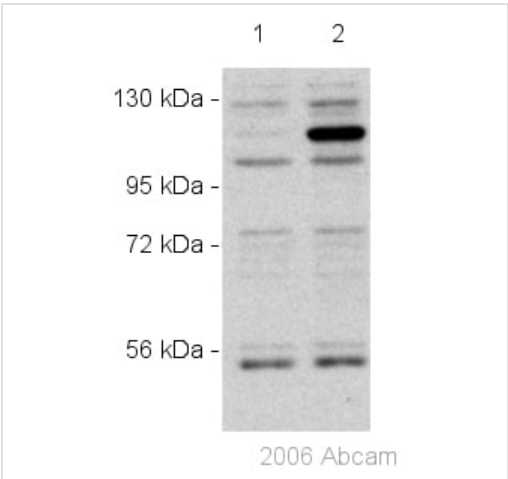
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	★★☆☆☆ (1)	1/1000.
ICC/IF		1/200.
WB	★★★☆☆ (3)	1/1000. Detects a band of approximately 120 kDa (predicted molecular weight: 120 kDa).

Target

Function	E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. Inhibits TGF-beta signaling by triggering SMAD2 and TGFBR1 ubiquitination and proteasome-dependent degradation. Promotes ubiquitination and internalization of various plasma membrane channels such as ENaC, Nav1.2, Nav1.3, Nav1.5, Nav1.7, Nav1.8, Kv1.3, EAAT1 or CLC5. Promotes ubiquitination and degradation of SGK1 and TNK2.
Tissue specificity	Ubiquitously expressed, with highest levels in prostate, pancreas and kidney.
Pathway	Protein modification; protein ubiquitination.
Sequence similarities	Contains 1 C2 domain. Contains 1 HECT (E6AP-type E3 ubiquitin-protein ligase) domain. Contains 4 WW domains.
Post-translational modifications	Phosphorylated by SGK1 or PKA; which impairs interaction with SCNN. Interaction with YWHAH inhibits dephosphorylation. Auto-ubiquitinated.
Cellular localization	Cytoplasm. May be recruited to exosomes by NDFIP1.

Images



Western blot - Anti-NEDD4-2 antibody (ab46521)

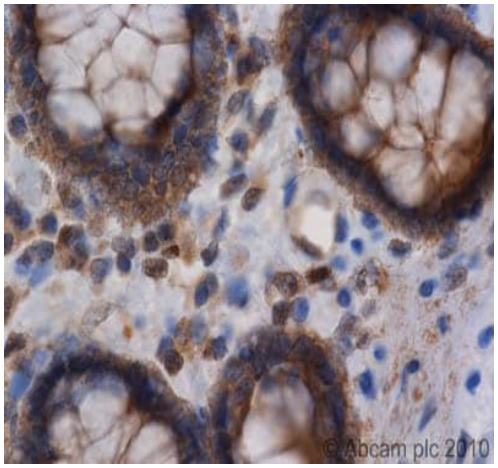
All lanes : Anti-NEDD4-2 antibody (ab46521)

Lane 1 : Extract from non-transfected HEK293 cells

Lane 2 : Extract from HEK293 cells transfected with NEDD4-2

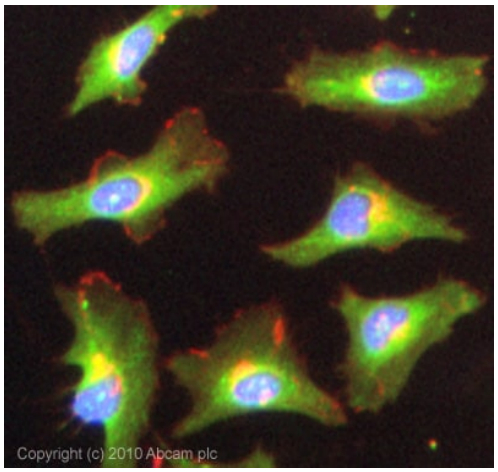
Predicted band size: 120 kDa

Observed band size: 120 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NEDD4-2 antibody (ab46521)

ab46251 (1/1000) staining NEDD4-2 in human colon using an automated system (DAKO Autostainer Plus). Using this protocol there is strong cytoplasmic and membrane staining of the intestinal glands cells.
Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer EDTA pH 9.0 in a DAKO PT link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.



Immunocytochemistry/ Immunofluorescence - Anti-NEDD4-2 antibody (ab46521)

ICC/IF image of ab46521 stained HeLa cells. The cells were 100% methanol fixed (5 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 ab46521 at 1/200 dilution 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.

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