abcam

Product datasheet

Anti-RanBP2 antibody ab64276

KO VALIDATED

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Overview

Product name	Anti-RanBP2 antibody
Description	Rabbit polyclonal to RanBP2
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF, IP
Species reactivity	**Reacts with:** Human **Predicted to work with:** Cow
Immunogen	Synthetic peptide (human) corresponding to 3 times repeated sequence in RanBP2 protein: SKAPKSGFEGMFTKKE , amino acids 1592-1607. Run BLAST with Run BLAST with
Positive control	WB: Wild-type HeLa, HeLa and Caco2 whole cell lysates. ICC: HeLa cells.
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). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 6 Preservative: 0.09% Sodium azide Constituent: Whole serum
Purity	Whole antiserum
Clonality	Polyclonal

Isotype	IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab64276 in the following tested applications.

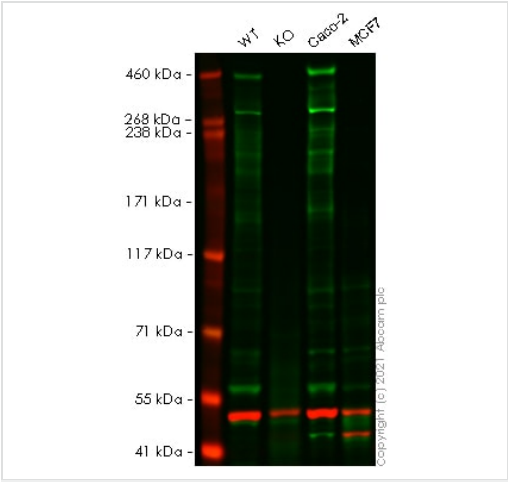
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆ (1)	1/1000. Detects a band of approximately 358 kDa (predicted molecular weight: 358 kDa).
ICC/IF	★★★★★ (3)	1/2000.
IP		Use at an assay dependent concentration.

Target

Function	E3 SUMO-protein ligase which facilitates SUMO1 and SUMO2 conjugation by UBE2I. Involved in transport factor (Ran-GTP, karyopherin)-mediated protein import via the F-G repeat-containing domain which acts as a docking site for substrates. Could also have isomerase or chaperone activity and may bind RNA or DNA. Component of the nuclear export pathway. Specific docking site for the nuclear export factor exportin-1.
Pathway	Protein modification; protein sumoylation.
Involvement in disease	Defects in RANBP2 are the cause of susceptibility to encephalopathy acute necrotizing type 1 (ANE1) [MIM:608033]. A rapidly progressive encephalopathy manifesting in susceptibile individuals with seizures and coma. It can occur within days in otherwise healthy children after common viral infections such as influenza and parainfluenza, without evidence of viral infection of the brain or inflammatory cell infiltration. Brain T2-weighted magnetic resonance imaging reveals characteristic symmetric lesions present in the thalami, pons and brainstem.
Sequence similarities	Contains 1 PPIase cyclophilin-type domain. Contains 4 RanBD1 domains. Contains 8 RanBP2-type zinc fingers. Contains 1 TPR repeat.
Domain	Contains F-X-F-G repeats.
Post-translational modifications	Polyubiquitinated by PARK2, which leads to proteasomal degradation.
Cellular localization	Nucleus > nuclear pore complex. Cytoplasmic filaments.

Images



Western blot - Anti-RanBP2 antibody (ab64276)

All lanes : Anti-RanBP2 antibody (ab64276) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : RANBP2 knockout HeLa cell lysate
Lane 3 : Caco2 cell lysate
Lane 4 : MCF7 cell lysate

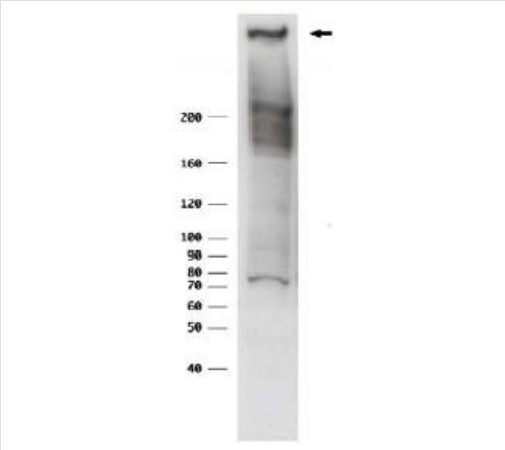
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 358 kDa
Observed band size: 450 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab64276 observed at 450 kDa. Red - loading control ab7291 (Mouse anti-Alpha Tubulin [DM1A]) observed at 55 kDa.

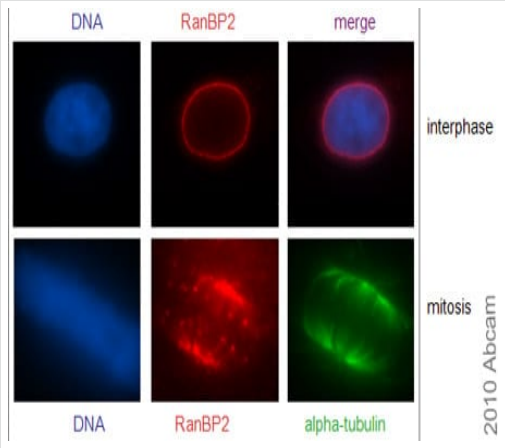
ab64276 was shown to react with RanBP2 in wild-type HeLa cells in Western blot with loss of signal observed in RANBP2 knockout cell line ab265618 (RANBP2 knockout cell lysate ab257627). Wild-type HeLa and RANBP2 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween®) before incubation with ab64276 and ab7291 (Mouse anti-Alpha Tubulin [DM1A]) overnight at 4 °C at a 1:1000 dilution and 1:20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) secondary antibodies at 1:20000 dilution for 1 h at room temperature before imaging.



Western blot - Anti-RanBP2 antibody (ab64276)

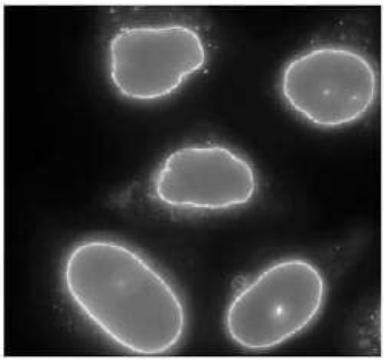
Anti-RanBP2 antibody (ab64276) at 1/1000 dilution + HeLa total cell lysate

Predicted band size: 358 kDa
Observed band size: 358 kDa



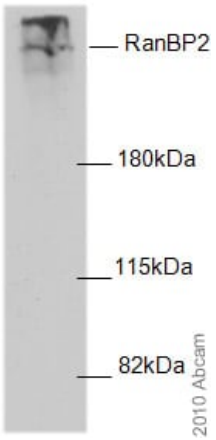
Immunocytochemistry/ Immunofluorescence - Anti-RanBP2 antibody (ab64276)

ab64276 (1:2000) staining RanBP2 in Hela cells pre-extracted in 0.005% digitonin and fixed in 3.7% PFA/30 mM sucrose/PBS for 15 min (room temperature). *Image kindly provided by Patrizia Lavia, Univ. "La Sapienza", CNR, Italy.*



Immunocytochemistry/ Immunofluorescence - Anti-RanBP2 antibody (ab64276)

Immunofluorescent staining of paraformaldehyde fixed HeLa cells by ab64276 (1:2000).



Western blot - Anti-RanBP2 antibody (ab64276)

Anti-RanBP2 antibody (ab64276) at 1/2000 dilution + Hela whole cell lysate

Predicted band size: 358 kDa

Exposure time: 1 minute

WB performed on a 6%SDS-PAGE gel.
Image Kindly provided by Patrizia Lavia, University "La Sapienza", CNR, Italy.

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