



Product datasheet

Anti-RAB27A antibody [1G7] ab55667

KO VALIDATED

★★★★☆ 10 Abreviews 42 References 6 Images

Overview

Product name	Anti-RAB27A antibody [1G7]
Description	Mouse monoclonal [1G7] to RAB27A
Host species	Mouse
Specificity	ab55667 is likely to cross-react with RAB27B as the immunogen has 60 % homology with RAB27B.
Tested applications	Suitable for: WB, IHC-P, ICC/IF, IP, IHC-FoFr
Species reactivity	Reacts with: Mouse, Rat, Human Predicted to work with: Rabbit 
Immunogen	Recombinant fragment corresponding to Human RAB27A aa 122-221. Sequence: YCENPDIMLCGNKSDLEDQRRVVKEEEAIALAEKYGIPYFET SAANGTNIS QAIEMLLDLIMKRMERCVDKSWIPEGVVRSGHASTDQLS EEKEKGACGC Database link: P51159  Run BLAST with  Run BLAST with
Positive control	WB: HAP1, Jurkat, MCF7 whole cell lysate; HL-60 cells; 293 cells, IHC-P: Human lymphoma. ICC/IF: Cow Retinal Pigment Epithelium (RPE) cells
General notes	<p>This product was changed from ascites to tissue culture supernatant on 13th Feb 2019. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.</p> <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. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.4
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	1G7
Isotype	IgG1
Light chain type	kappa

Applications

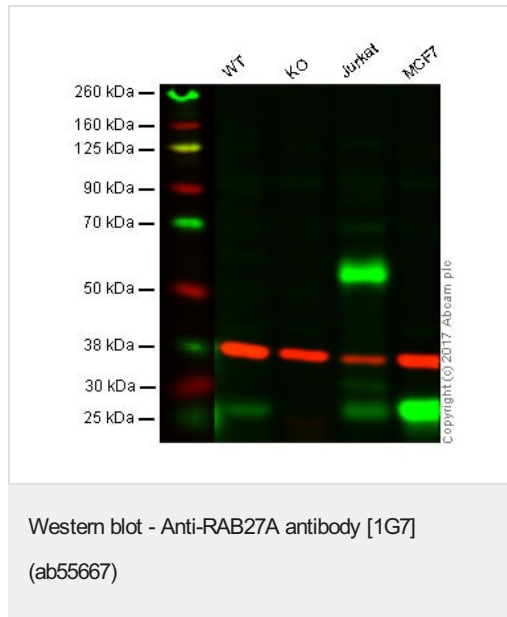
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab55667 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (4)	Use at an assay dependent concentration. Predicted molecular weight: 25 kDa.
IHC-P	★★★★★ (2)	Use at an assay dependent concentration.
ICC/IF	★★★★★ (3)	Use at an assay dependent concentration.
IP	★★★★★ (1)	Use at an assay dependent concentration. See Abreview.
IHC-FoFr		Use at an assay dependent concentration. PubMed: 21832089

Target

Function	Plays a role in cytotoxic granule exocytosis in lymphocytes. Required for both granule maturation and granule docking and priming at the immunologic synapse.
Tissue specificity	Found in all the examined tissues except in brain. Low expression was found in thymus, kidney, muscle and placenta. Detected in melanocytes, and in most tumor cell lines examined. Expressed in cytotoxic T-lymphocytes (CTL) and mast cells.
Involvement in disease	Defects in RAB27A are a cause of Griscelli syndrome type 2 (GS2) [MIM:607624]. Griscelli syndrome is a rare autosomal recessive disorder that results in pigmentary dilution of the skin and hair, the presence of large clumps of pigment in hair shafts, and an accumulation of melanosomes in melanocytes. GS2 patients also develop an uncontrolled T-lymphocyte and macrophage activation syndrome, known as hemophagocytic syndrome, leading to death in the absence of bone marrow transplantation. Neurological impairment is present in some patients, likely as a result of hemophagocytic syndrome.
Sequence similarities	Belongs to the small GTPase superfamily. Rab family.
Cellular localization	Membrane. Melanosome. Late endosome. Lysosome. Identified by mass spectrometry in

Images



Lane 1: Wild type HAP1 whole cell lysate (20 µg)

Lane 2: RAB27A knockout HAP1 whole cell lysate (20 µg)

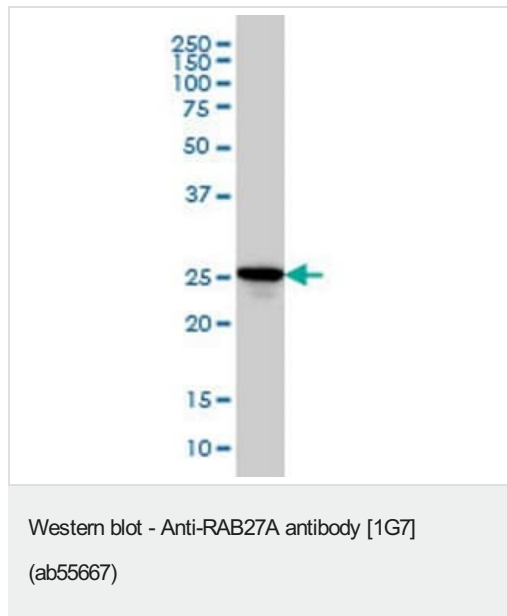
Lane 3: Jurkat whole cell lysate (20 µg)

Lane 4: MCF7 whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab55667 observed at 27 kDa. Red - loading control, **ab181602**, observed at 37 kDa.

ab55667 was shown to specifically react with RAB27A when RAB27A knockout samples were used. Wild-type and RAB27A knockout samples were subjected to SDS-PAGE. Ab55667 and **ab181602** (Rabbit anti GAPDH loading control) were incubated overnight at 4°C at 2.5 ug/ml and 1/10000 dilution respectively. Blots were developed with IRDye® 800CW Goat anti-Mouse IgG (H + L) and IRDye® 680 Goat anti-Rabbit IgG (H + L) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

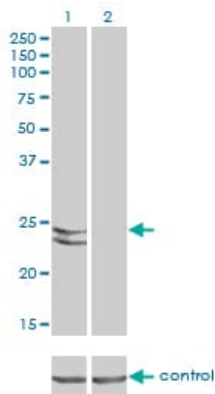
This image was generated using the ascites version of the product.



Anti-RAB27A antibody [1G7] (ab55667) + HL-60 cell lysate

Predicted band size: 25 kDa

This image was generated using the ascites version of the product.



Western blot - Anti-RAB27A antibody [1G7]
(ab55667)

All lanes : Anti-RAB27A antibody [1G7] (ab55667)

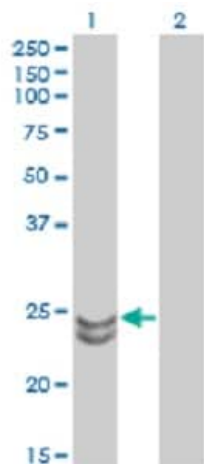
Lane 1 : RAB27A over-expressed 293 cell line, cotransfected with RAB27A Validated Chimera RNAi

Lane 2 : Non-transfected control

Predicted band size: 25 kDa

GAPDH (36.1 kDa) used as specificity and loading control.

This image was generated using the ascites version of the product.



Western blot - Anti-RAB27A antibody [1G7]
(ab55667)

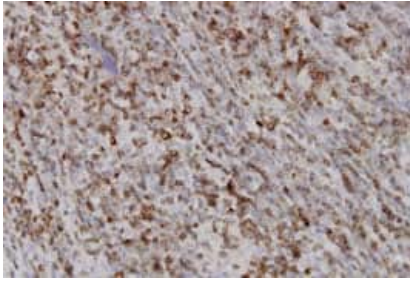
All lanes : Anti-RAB27A antibody [1G7] (ab55667)

Lane 1 : RAB27A transfected lysate(24.9 KDa)

Lane 2 : Non-transfected lysate

Predicted band size: 25 kDa

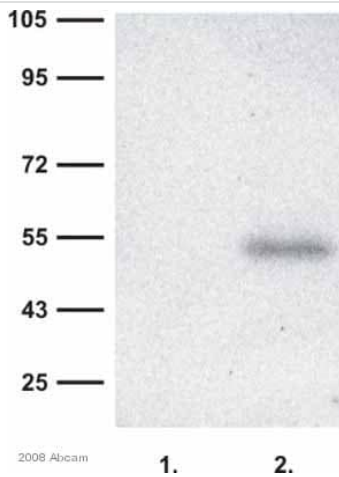
This image was generated using the ascites version of the product.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RAB27A antibody [1G7] (ab55667)

RAB27A antibody (ab55667) used in immunohistochemistry at 3ug/ml on formalin fixed and paraffin embedded human lymphoma. Heat induced antigen retrieval with Citrate buffer pH 6 has been performed prior to immunostaining.

This image was generated using the ascites version of the product.



Western blot - Anti-RAB27A antibody [1G7] (ab55667)

This image is courtesy of an Abreview submitted by Dr Vladimir Milenkovic

All lanes : Anti-RAB27A antibody [1G7] (ab55667) at 1/200 dilution

Lane 1 : whole cell lysate of HEK 293 transfected with empty pCDNA3 vector

Lane 2 : whole cell lysate of HEK 293 cells expressing Rab27a-GFP

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : HRP conjugated goat anti-mouse

Developed using the ECL technique.

Predicted band size: 25 kDa

Observed band size: 52 kDa

Exposure time: 30 minutes

Rab27a (25kDa)+GFP(27kDa)=52kDa

The blot was blocked with 5% milk for 30 minutes at 25°C and incubated with the primary antibody for 12 hours at 4°C.

This image was generated using the ascites version of the product.

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