

# Alexa Fluor® 488 Anti-Rab5 antibody [EPR21801] - Early Endosome Marker ab270094

**KO VALIDATED** Recombinant RabMAB

[1 References](#) [3 Images](#)

### Overview

<b>Product name</b>	Alexa Fluor® 488 Anti-Rab5 antibody [EPR21801] - Early Endosome Marker
<b>Description</b>	Alexa Fluor® 488 Rabbit monoclonal [EPR21801] to Rab5 - Early Endosome Marker
<b>Host species</b>	Rabbit
<b>Conjugation</b>	Alexa Fluor® 488. Ex: 495nm, Em: 519nm
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	Flow Cyt-intra: HAP1 cells. ICC/IF: Hap1 cells.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAB® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAB® patents</a>.</p> <p>Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: (i) in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or <a href="mailto:outlicensing@thermofisher.com">outlicensing@thermofisher.com</a>.</p>

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. Store In the Dark.
<b>Storage buffer</b>	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, 68% PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR21801
<b>Isotype</b>	IgG

## Applications

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**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab270094 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
Flow Cyt (Intra)		1/2500.
ICC/IF		1/500. This product gave a positive signal in Hap1 fixed with 100% methanol (5 min).

## Target

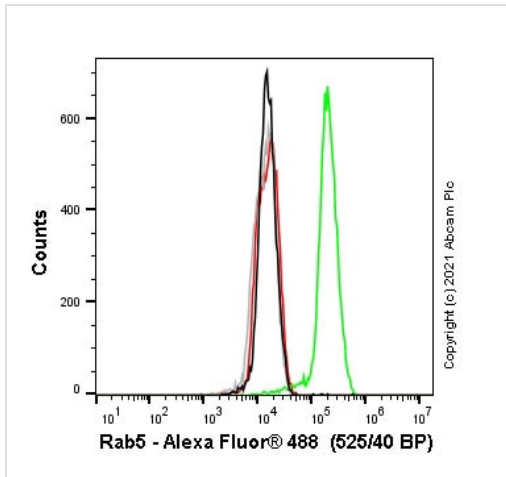
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<b>Function</b>	Required for the fusion of plasma membranes and early endosomes.
<b>Sequence similarities</b>	Belongs to the small GTPase superfamily. Rab family.
<b>Cellular localization</b>	Cell membrane. Early endosome membrane. Melanosome. Enriched in stage I melanosomes.

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## Images

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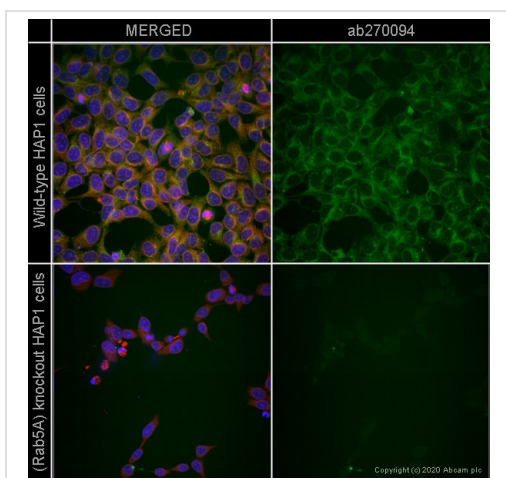
Flow Cytometry (Intracellular) - Alexa Fluor® 488  
Anti-Rab5 antibody [EPR21801] - Early Endosome  
Marker (ab270094)

Flow cytometry overlay histogram showing wild-type Hap1 (green line) and RAB5A knockout Hap1 cells (ab) stained with ab270094 (red line). The cells were fixed with 4% formaldehyde (10 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS containing 10% normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab270094) ( $1 \times 10^6$  in  $100 \mu\text{L}$  at  $0.2 \mu\text{g}/\text{mL}$  (1/2500) for 30 min at  $22^\circ\text{C}$ .

Isotype control antibody (black line) was Rabbit IgG (monoclonal) Alexa Fluor 488® (**ab199091**) used at the same concentration and conditions as the primary antibody (wild-type Hap1 - black line RAB5A knockout Hap1 - grey line). Unlabelled sample was also used as a control (this line is not shown for the purpose of simplicity).

Acquisition of >5000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter.

This antibody can also be used in Hap1 cells fixed with 80% methanol (5 min) / permeabilized with 0.1% PBS-Triton X-100 for 15 min under the same conditions.



Immunocytochemistry/ Immunofluorescence - Alexa  
Fluor® 488 Anti-Rab5 antibody [EPR21801] - Early  
Endosome Marker (ab270094)

ab270094 staining Rab5 in Hap1 (Human cell line) cells, with negative expression in Hap1-Rab5A cells.

The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at  $+4^\circ\text{C}$  with ab270094 at 1/500 dilution (shown in green) and **ab190573**, Rabbit monoclonal to alpha Tubulin (Alexa Fluor® 647), at 1/250 dilution (shown in red). Nuclear DNA was labeled with DAPI (shown in blue).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.

## Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Alexa Fluor® 488 Anti-Rab5 antibody [EPR21801] -  
Early Endosome Marker (ab270094)

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

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