

## Product datasheet

### Anti-IFNGR1 antibody [EPR7866] ab134070

**KO VALIDATED** Recombinant RabMAB

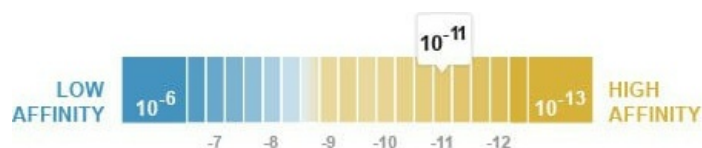
★★★★★ [1 Abreviews](#) [7 References](#) [9 Images](#)

#### Overview

<b>Product name</b>	Anti-IFNGR1 antibody [EPR7866]
<b>Description</b>	Rabbit monoclonal [EPR7866] to IFNGR1
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, Flow Cyt (Intra), ICC/IF <b>Unsuitable for:</b> IP
<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>	WB: HeLa, HEK-293T and HepG2 cell lysates. IHC-P: Human tonsil tissue. Flow Cyt (intra): HeLa cells, HEK293 cells. ICC/IF: MCF7 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<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAB<sup>®</sup> patents</a>.</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Dissociation constant (K<sub>D</sub>)</b>	K <sub>D</sub> = 1.20 x 10 <sup>-11</sup> M



[Learn more about K<sub>D</sub>](#)

<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide
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Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant

<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR7866
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab134070 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		1/1000 - 1/10000. Detects a band of approximately 75-90 kDa (predicted molecular weight: 54 kDa).
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
Flow Cyt (Intra)		1/1000. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★★ (1)	1/100.

**Application notes** Is unsuitable for IP.

## Target

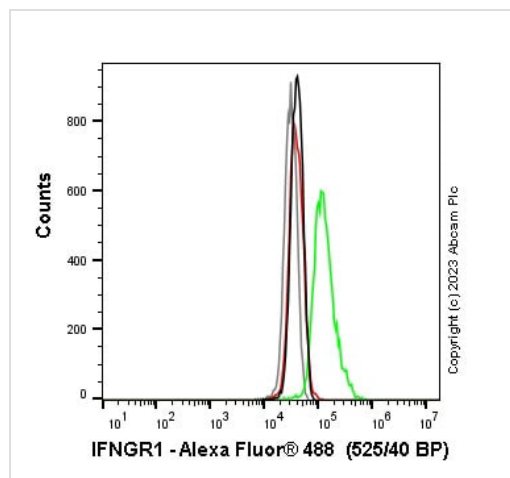
**Function** Receptor for interferon gamma. Two receptors bind one interferon gamma dimer.

**Involvement in disease** Defects in IFNGR1 are a cause of mendelian susceptibility to mycobacterial disease (MSMD) [MIM:209950]; also known as familial disseminated atypical mycobacterial infection. This rare condition confers predisposition to illness caused by moderately virulent mycobacterial species, such as Bacillus Calmette-Guerin (BCG) vaccine and environmental non-tuberculous mycobacteria, and by the more virulent Mycobacterium tuberculosis. Other microorganisms rarely cause severe clinical disease in individuals with susceptibility to mycobacterial infections, with the exception of Salmonella which infects less than 50% of these individuals. The pathogenic mechanism underlying MSMD is the impairment of interferon-gamma mediated immunity whose severity determines the clinical outcome. Some patients die of overwhelming mycobacterial disease with lepromatous-like lesions in early childhood, whereas others develop, later in life, disseminated but curable infections with tuberculoid granulomas. MSMD is a genetically heterogeneous disease with autosomal recessive, autosomal dominant or X-linked inheritance.

**Sequence similarities** Belongs to the type II cytokine receptor family.  
Contains 2 fibronectin type-III domains.  
Contains 2 Ig-like C2-type (immunoglobulin-like) domains.

**Post-translational modifications** Phosphorylated at Ser/Thr residues.

## Images



Flow Cytometry (Intracellular) - Anti-IFNGR1 antibody [EPR7866] (ab134070)

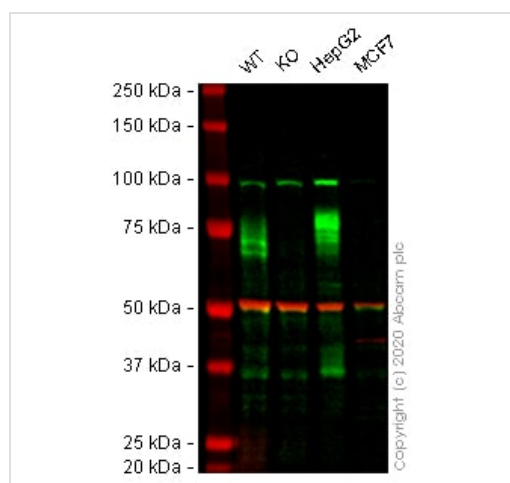
Flow cytometry overlay histogram showing wild-type HEK293 (green line) and IFNGR1 knockout HEK293 stained with ab134070 (red line). The cells were fixed with 4% formaldehyde (10 min) and then permeabilised with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS containing 10% normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab134070) ( $1 \times 10^6$  in 100 $\mu$ l at 0.2  $\mu$ g/ml (1/10000)) for 30min at 22°C.

The secondary antibody Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 for 30min at 22°C

Isotype control antibody Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control was used at the same concentration and conditions as the primary antibody (wild-type HEK293 - black line, IFNGR1 knockout HEK293 - 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 gave a positive signal in HEK293 Fixed with 80% methanol (5 min) / permeabilised with 0.1% PBS-Triton X-100 for 15 min under the same conditions.



Western blot - Anti-IFNGR1 antibody [EPR7866] (ab134070)

**All lanes** : Anti-IFNGR1 antibody [EPR7866] (ab134070) at 1/1000 dilution

**Lane 1** : Wild-type HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate

**Lane 2** : IFNGR1 knockout HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate

**Lane 3** : Hep G2 (Human liver hepatocellular carcinoma cell line) whole cell lysate

**Lane 4** : MCF7 (Human breast adenocarcinoma cell line) whole cell lysate

Lysates/proteins at 20  $\mu$ g per lane.

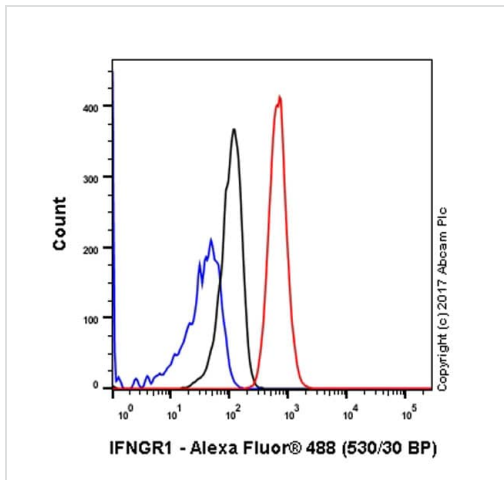
Performed under reducing conditions.

**Predicted band size:** 54 kDa

**Observed band size:** 60-80 kDa

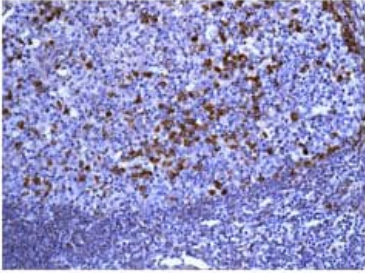
**Lanes 1 - 4:** Merged signal (red and green). Green - ab134070 observed at 60-80 kDa. Red - loading control **ab7291** (Mouse anti-Alpha Tubulin [DM1A]) observed at 55kDa.

ab134070 was shown to react with IFNGR1 in wild-type HEK-293 cells in western blot with loss of signal observed in IFNGR1 knockout sample. Wild-type and IFNGR1 knockout HEK-293 cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween<sup>®</sup>) before incubation with ab134070 and **ab7291** (Mouse anti-Alpha Tubulin [DM1A]) overnight at 4°C at a 1 in 1000 Dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye<sup>®</sup> 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup> 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Flow Cytometry (Intracellular) - Anti-IFNGR1 antibody [EPR7866] (ab134070)

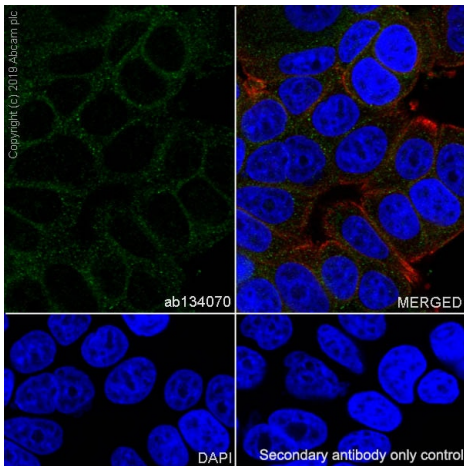
Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling IFNGR1 (red) with ab134070 at a 1/1000 dilution. Cells were fixed with 80% methanol and permeabilized with 0.1% Tween-20. A goat anti-rabbit IgG (Alexa Fluor<sup>®</sup> 488) (**ab150077**) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (**ab172730**). Blue (unlabeled control) - Cells without incubation with the primary and secondary antibodies.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IFNGR1 antibody [EPR7866] (ab134070)

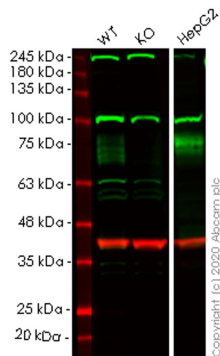
Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labelling IFNGR1 with ab134070 at 1/100 dilution.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-IFNGR1 antibody [EPR7866] (ab134070)

Immunocytochemistry/ Immunofluorescence analysis of MCF7 (human breast adenocarcinoma epithelial cell) cells labeling IFNGR1 with purified ab134070 at 1/100 dilution (10 µg/mL). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 (2 µg/mL) dilution. DAPI (blue) was used as nuclear counterstain. **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL) was used as the secondary antibody only control.



Western blot - Anti-IFNGR1 antibody [EPR7866] (ab134070)

**All lanes** : Anti-IFNGR1 antibody [EPR7866] (ab134070) at 1/1000 dilution

**Lane 1** : Wild-type HeLa cell lysate

**Lane 2** : IFNGR1 knockout HeLa cell lysate

**Lane 3** : HepG2 cell lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

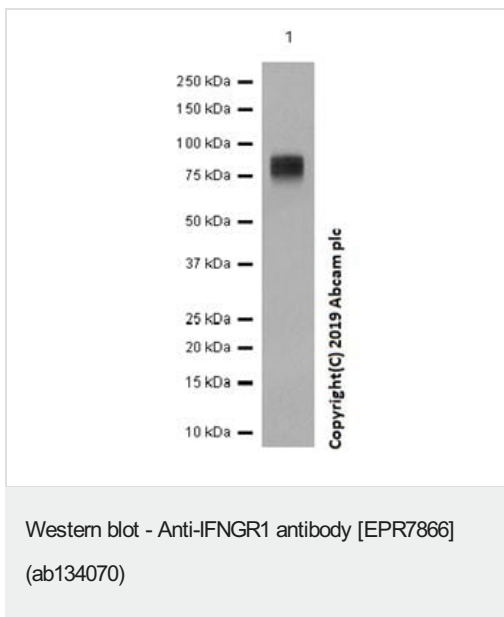
**All lanes** : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) at 1/10000 dilution

**Predicted band size:** 54 kDa

**Observed band size:** 70-95 kDa

**Lanes 1-3:** Merged signal (red and green). Green - ab134070 observed at 70-95 kDa. Red - loading control **ab8245** observed at 36 kDa.

ab134070 Anti-IFNGR1 antibody [EPR7866] was shown to specifically react with IFNGR1 in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab265111** (knockout cell lysate **ab257477**) was used. Wild-type and IFNGR1 knockout samples were subjected to SDS-PAGE. ab134070 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Anti-IFNGR1 antibody [EPR7866] (ab134070) at 1/1000 dilution + HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate at 20 µg

### Secondary

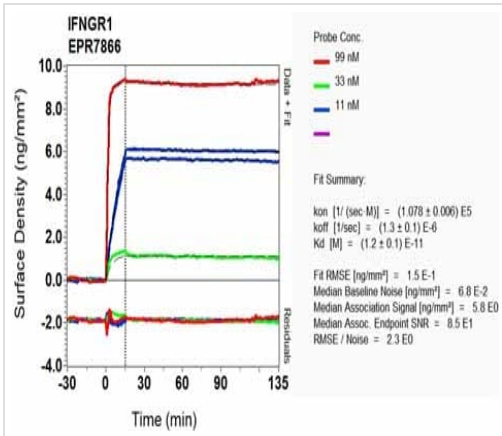
Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

**Predicted band size:** 54 kDa

**Observed band size:** 75-90 kDa

**Exposure time:** 60 seconds

Blocking/Diluting buffer and concentration: 5% NFDM/TBST



OI-RD Scanning - Anti-IFNGR1 antibody [EPR7866]  
(ab134070)

Equilibrium dissociation constant ( $K_D$ )

Learn more about  $K_D$

[Click here to learn more about  \$K\_D\$](#)

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

Anti-IFNGR1 antibody [EPR7866] (ab134070)

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

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