

### Anti-Insulin Receptor beta antibody [C18C4] ab69508

★★★★★ [2 Abreviews](#) [35 References](#) [3 Images](#)

#### Overview

<b>Product name</b>	Anti-Insulin Receptor beta antibody [C18C4]
<b>Description</b>	Mouse monoclonal [C18C4] to Insulin Receptor beta
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt, IHC-P, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Recombinant fragment corresponding to Human Insulin Receptor beta.
<b>Positive control</b>	MCF-7, Rat-2 and L-929 cells
<b>General notes</b>	<p>This product was changed from ascites to tissue culture supernatant on 22<sup>nd</sup> May 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&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	Preservative: 0.09% Sodium azide Constituents: 50% Glycerol (glycerin, glycerine), PBS
<b>Purity</b>	Protein G purified
<b>Purification notes</b>	Purified from TCS.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	C18C4
<b>Isotype</b>	IgG1

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab69508 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	★★★★★ (1)	Use at an assay dependent concentration. <b>ab170190</b> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB	★★★★★ (1)	Use at an assay dependent concentration. Detects a band of approximately 95 kDa (predicted molecular weight: 95 kDa). (developed by ECL)

## Target

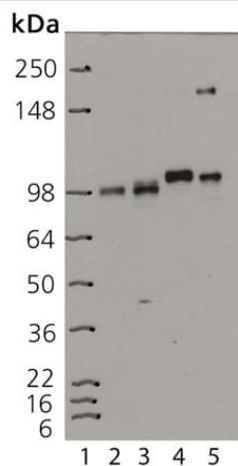
### Relevance

Insulin receptor mediates the biological activities of insulin by regulating multiple signaling pathways through activation of a series of phosphorylation cascades. The human insulin receptor is a heterotetrameric membrane glycoprotein consisting of disulfide-linked subunits in a  $\beta$ - $\alpha$ - $\alpha$ - $\beta$  configuration. The  $\beta$ -subunit (95kDa) possesses a single transmembrane domain with tyrosine kinase activity, whereas the  $\alpha$ -subunit (135kDa) is completely extracellular. The alpha subunits each contain insulin binding sites and are entirely extracellular in localization. The beta subunits each possess an extracellular domain, a single transmembrane domain, and a cytoplasmic tyrosine kinase domain. Binding of insulin to the alpha subunits induces a conformation change in the receptor which activates the kinase domain, stimulating tyrosine autophosphorylation of the receptor and tyrosine phosphorylation of at least five different insulin receptor substrates designated IRS-1-4, and Shc.

### Cellular localization

Membrane; Single pass type I membrane protein.

## Images



Western blot - Anti-Insulin Receptor beta antibody  
[C18C4] (ab69508)

**All lanes :** Anti-Insulin Receptor beta antibody [C18C4] (ab69508)  
at 1/1000 dilution

**Lane 2 :** HeLa lysate (Human epithelial cell line from cervix  
adenocarcinoma)

**Lane 3 :** MCF-7 lysate (Human breast adenocarcinoma cell line)

**Lane 4 :** PC-12 lysate (Rat adrenal gland pheochromocytoma cell  
line)

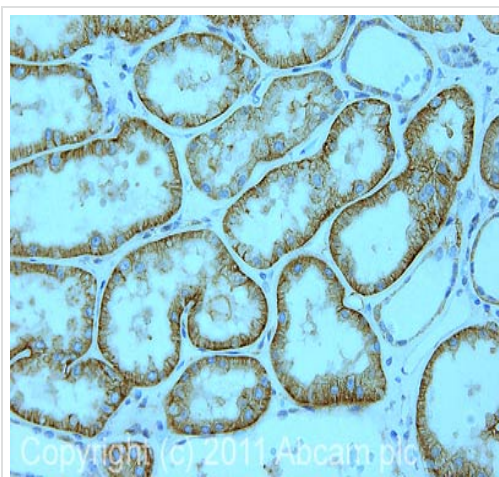
**Lane 5 :** 3T3-L1 lysate (Mouse embryonic fibroblast cell line)

Developed using the ECL technique.

**Predicted band size:** 95 kDa

**Observed band size:** 98 kDa

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

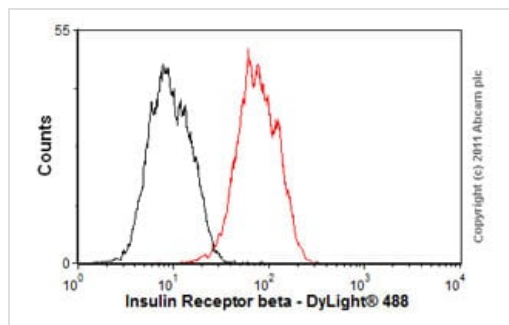


Immunohistochemistry (Formalin/PFA-fixed paraffin-  
embedded sections) - Anti-Insulin Receptor beta  
antibody [C18C4] (ab69508)

IHC image of ab69508 staining in human normal kidney formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab69508, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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



Flow Cytometry - Anti-Insulin Receptor beta antibody [C18C4] (ab69508)

Overlay histogram showing HepG2 cells stained with ab69508 (red line). The cells were fixed with 80% methanol (5 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab69508, 1 µg/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) ([ab96879](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [CIGG1] ([ab91353](#), 2 µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed.

Please note that Abcam do not have any data for use of this antibody on non-fixed cells. We welcome any customer feedback.

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

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

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