

## Product datasheet

# Anti-Insulin Receptor beta antibody [18-44] ab983

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### Overview

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<b>Product name</b>	Anti-Insulin Receptor beta antibody [18-44]
<b>Description</b>	Mouse monoclonal [18-44] to Insulin Receptor beta
<b>Host species</b>	Mouse
<b>Specificity</b>	This antibody reacts specifically with the beta subunit of the insulin receptor.
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Full length protein corresponding to Human Insulin Receptor beta. Human placental insulin receptor.
<b>General notes</b>	<p>This product was changed from ascites to tissue culture supernatant on 19/12/2018. 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

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.4
<b>Purity</b>	Protein G purified
<b>Purification notes</b>	Purified from TCS
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	18-44
<b>Isotype</b>	IgG2b

## Applications

### The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab983 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		Use 1µg for 10 <sup>6</sup> cells. <a href="#">ab170192</a> - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

## Target

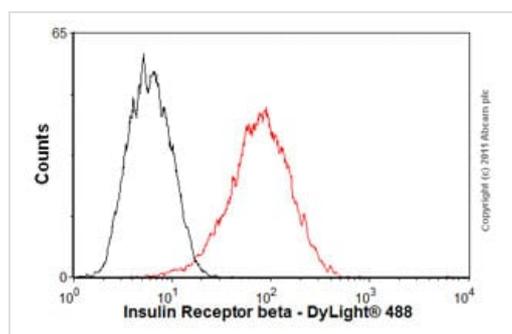
### Relevance

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 β-a-α-β configuration. The β-subunit (95kDa) possesses a single transmembrane domain with tyrosine kinase activity, whereas the α-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



Flow Cytometry - Anti-Insulin Receptor beta antibody [18-44] (ab983)

Overlay histogram showing HepG2 cells stained with ab983 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab983, 1µg/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 IgG2b [PLPV219] ([ab91366](#), 2µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HepG2 cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

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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