abcam

Product datasheet

Anti-IRS1 (phospho S616) antibody ab4776

1 References 3 Images

Overview

Product name	Anti-IRS1 (phospho S616) antibody
Description	Rabbit polyclonal to IRS1 (phospho S616)
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, WB
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Rat
Immunogen	Synthetic peptide corresponding to IRS1 (phospho S616).
Positive control	WB: HEK-293T cells. IHC-P: Human breast carcinoma tissue, mouse skeletal muscle tissue.
General notes	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. 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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.30 Preservative: 0.05% Sodium azide Constituents: PBS, 0.1% BSA, 50% Glycerol BSA is IgG and protease free
Purity	Immunogen affinity purified
Purification notes	Purified from rabbit serum by sequential epitope-specific chromatography. The antibody has been negatively preadsorbed using a non-phosphopeptide corresponding to the site of phosphorylation to remove antibody that is reactive with non-phosphorylated insulin receptor substrate 1 (IRS 1).
Clonality	Polyclonal

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab4776 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
IHC-P		1/10 - 1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		1/1000. Predicted molecular weight: 165 kDa.

Target

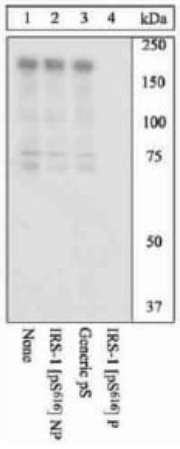
Function May mediate the control of various cellular processes by insulin. When phosphorylated by the insulin receptor binds specifically to various cellular proteins containing SH2 domains such as phosphatidylinositol 3-kinase p85 subunit or GRB2. Activates phosphatidylinositol 3-kinase when bound to the regulatory p85 subunit.

Involvement in disease Polymorphisms in IRS1 may be involved in the etiology of non-insulin-dependent diabetes mellitus (NIDDM) [MIM:125853].

Sequence similarities Contains 1 IRS-type PTB domain.
Contains 1 PH domain.

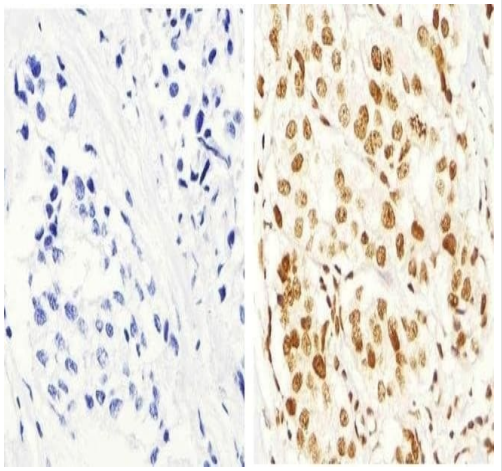
Post-translational modifications Serine phosphorylation of IRS1 is a mechanism for insulin resistance. Ser-312 phosphorylation inhibits insulin action through disruption of IRS1 interaction with the insulin receptor. Phosphorylation of Tyr-896 is required for GRB2-binding.

Images



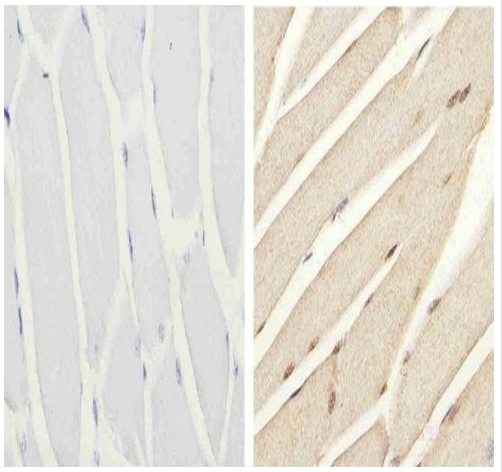
Western blot - Anti-IRS1 (phospho S616) antibody (ab4776)

Extracts of 293T cells transfected with wild-type human IRS1 and treated with 100 ng/mL TPA for 30 minutes were resolved by SDS-PAGE on a 10% Tris-glycine gel and transferred to PVDF.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRS1 (phospho S616) antibody (ab4776)

Immunohistochemistry analysis of IRS1 (phospho S616) showing staining in the nucleus of paraffin-embedded human breast carcinoma tissue (right) compared to a negative control without primary antibody (left). Antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Tissues were blocked in 3% H_2O_2-methanol for 15 min at room temperature, washed with ddH_2O and PBS, and then probed with ab4776 diluted in 3% BSA-PBS at a dilution of 1/100 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRS1 (phospho S616) antibody (ab4776)

Immunohistochemistry analysis of IRS1 (phospho S616) showing staining in the nucleus of paraffin-embedded mouse skeletal muscle tissue (right) compared to a negative control without primary antibody (left). Antigen retrieval was performed using 10mM sodium citrate (pH 6.0), microwaved for 8-15 min. Following antigen retrieval, tissues were blocked in 3% H_2O_2-methanol for 15 min at room temperature, washed with ddH_2O and PBS, and then probed with ab4776 diluted in 3% BSA-PBS at a dilution of 1/20 overnight at 4°C in a humidified chamber. Tissues were washed extensively in PBST and detection was performed using an HRP-conjugated secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.

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