

## Product datasheet

# Anti-IRS2 (phospho S731) antibody ab3690

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### Overview

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<b>Product name</b>	Anti-IRS2 (phospho S731) antibody
<b>Description</b>	Rabbit polyclonal to IRS2 (phospho S731)
<b>Host species</b>	Rabbit
<b>Specificity</b>	This antibody is specific for human IRS2 phosphorylated at the position of Serine 731. The antibodies were evaluated for specificity with a dot blot assay using synthetically prepared IRS peptides. It only recognizes the phosphorylated serine 731, not other phosphorylated sites or non-phosphorylated IRS 1 or IRS 2.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP, ELISA, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide (YKASSpPAESS), corresponding to amino acids 727-736 of human IRS2 at the phosphorylated site of Serine 731. This synthetic peptide also correlates to amino acids 719-728 of mouse IRS2 at the phosphorylation site of Serine 723 and to amino acids 229-238 of rat IRS2 at the serine phosphorylation site 233. <a href="#">Run BLAST with ExPASy</a> <a href="#">Run BLAST with NCBI</a>

### 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 or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	PBS with 0.02% sodium azide
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

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Our [Abpromise guarantee](#) covers the use of **ab3690** in the following tested applications.

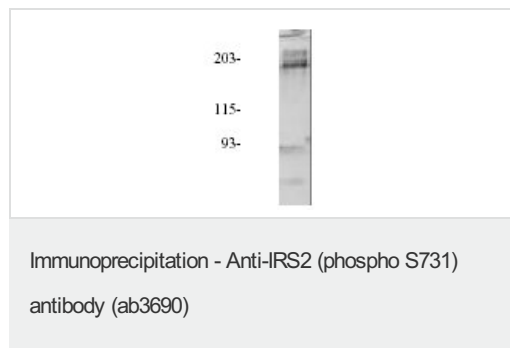
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆	Use a concentration of 0.5 - 2 µg/ml. Detects a band of approximately 200 kDa. in cell lysate derived from mouse serum-treated fibroblasts, which corresponds to the predicted molecular weight of phospho IRS 2. Samples were boiled prior to subject 7.5% SDS-polyacrylamide gelelectrophoresis.
IP		Use at an assay dependent concentration. Use at a concentration of 3.0 - 5.0 µg / extract from 10 <sup>7</sup> cells.
ELISA		Use a concentration of 0.1 - 1 µg/ml.
IHC-P		Use a concentration of 2 µg/ml.

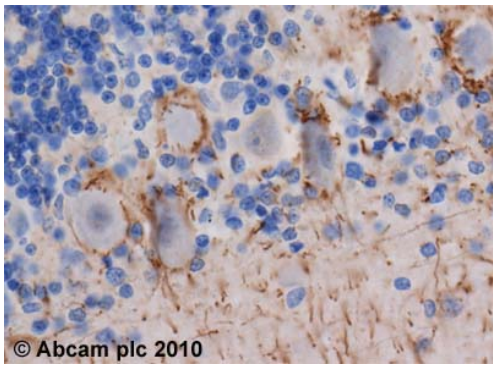
## Target

<b>Function</b>	May mediate the control of various cellular processes by insulin.
<b>Sequence similarities</b>	Contains 1 IRS-type PTB domain. Contains 1 PH domain.
<b>Post-translational modifications</b>	Phosphorylated upon DNA damage, probably by ATM or ATR.
<b>Cellular localization</b>	Cytoplasm > cytosol.

## Images



IP: 3T3 cell lysate immunoprecipitated with Anti-IRS-2 (pSER731) (ab3690)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IRS2 (phospho S731) antibody (ab3690)

ab3690 (2 $\mu$ g/ml) staining IRS2 (phospho S731) in human cerebellum using an automated system (DAKO Autostainer Plus). Using this protocol there is strong staining of the cell membrane.

Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer EDTA pH 9.0 in a DAKO PT link. Slides were peroxidase blocked in 3% H<sub>2</sub>O<sub>2</sub> in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.



Western blot - Anti-IRS2 (phospho S731) antibody (ab3690)

Anti-IRS2 (phospho S731) antibody (ab3690) at 1 µg/ml + Brain (Mouse) Tissue Lysate at 10 µg

**Secondary**

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Observed band size:** 160 kDa

**Additional bands at:** 121 kDa, 64 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 8 minutes

IRS2 contains a number of potential phosphorylation sites (SwissProt) which may explain its migration at a higher molecular weight than predicted. The 160 kDa band observed is also comparable to the molecular weight seen with other commercially available antibodies to IRS2.

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