

# AbboMax, Inc

Innovation at Work

## Rabbit anti Phospho- IRS-1(pTyr<sup>612</sup>) Antibody

Synonym: Anti-phospho-IRS-1 (pTyr<sup>612</sup>), Insulin-receptor substrate 1 (IRS-1).

### Order Information

Description: Rabbit anti IRS-1(pTyr<sup>612</sup>)  
Catalogue#: 601-600  
Lot#: See the label  
Size: 100 ug/200 ul  
Host: Rabbit  
Clone: N/A  
Application: ELISA, WB, IHC  
Reactivity: Hu, Rt, Ms

### ANTIGEN PREPARATION

A synthetic peptide corresponding to the epitope DGYMP with a single phosphorylation site Tyr612 of human IRS-1.

### BACKGROUND

Insulin Receptor Substrate-1 (IRS-1), 165 kDa cytoplasmic docking protein, is one of the major endogenous substrates of the insulin receptor kinase. IRS-1 contains multiple tyrosine phosphorylation motifs that serve as docking sites for SH2 domain containing proteins, which mediate the metabolic and growth promoting functions of insulin. IRS-1 also contains over 30 potential serine/threonine phosphorylation sites. Ser312 of IRS-1 is phosphorylated by JNK and IKK and Ser789 is phosphorylated by SIK-2, a member of AMPK family. The phosphorylation of Tyr612 and Ser636/639 is mediated by the PKC and mTOR pathways, respectively and phosphorylation at Ser1101 is mediated by PKC, resulting in an inhibition of insulin signaling in the cell, suggesting a potential mechanism for insulin resistance in some models of obesity.

### PURIFICATION

The Rabbit IgG is purified by Site-specific Epitope Affinity Purification.

### SPECIFICITY

This antibody recognizes ~165 kDa of human IRS-1 (pTyr 612). It also reacts with mouse and rat. The other species are not tested.

### FORMULATION

This affinity purified antibody is supplied in sterile Tris-buffered saline (pH7.2) containing antibody stabilizer

### STORAGE

The antibodies are stable for 12 months from date of receipt when stored at -20°C to -70°C. The antibodies can be stored at 2°C-8°C for three month without detectable loss of activity. Avoid repeated freezing-thawing cycles.

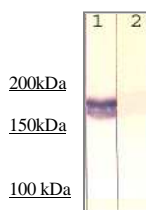
### APPLICATIONS/SUGGESTED WORKING DILUTIONS

Western Blot	0.1-1 µg/ml
ELISA	0.01-0.1 µg/ml
Immunoprecipitation	2-5 µg/ml
IHC	0.5-2 µg/ml
Flow cytometry	Not tested

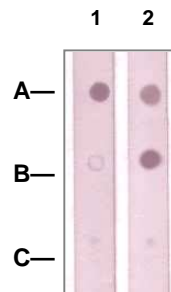
<b>MOLECULAR WEIGHT:</b>	165 kDa
<b>POSITIVE CONTROL:</b>	CHO cell lysate
<b>CELLULAR LOCATION:</b>	N/A

Optimal dilutions should be determined by researchers for the specific applications.

### DATA ATTACHMENTS



**Western Blot:** The cell lysate derived from insulin stimulated CHO was immunoprecipitated by Rabbit anti IRS-1 (pY612), (Cat#601-600), then immunoprobed by the same antibody at 1:500 (lane 1). Lane 2 is a negative control.



#### Dot Blot:

1 µg peptide was blot onto NC membrane  
A: IRS-1(pY612)  
B: IRS-1(non phosphorylated)  
C: Non-related Phosphopeptide  
Followed by rabbit antibodies incubation at a 1:1000 dilution:  
1: Rabbit anti-IRS-1(pY612) (Cat#601-600)  
2: Rabbit anti-IRS-1(Paired Y612)

### REFERENCES

Li, Y. et al. (2004) J. Biol. Chem. 279, 45304-45307.

**FOR RESEARCH USE ONLY.**

AbboMax, Inc 1161 Ringwood Ct. Suite 100, San Jose, California 95131, USA  
1 408-321-9898 (Tel). 1 408-321-9896 (Fax). 1-866-628-9898 www.abbomax.com info@abbomax.com