



# IRS-1 Rabbit mAb

<b>Catalog No</b>	YP-rAb-17513
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human,Mouse,Rat,Pig
<b>Applications</b>	WB,IHC,IF,IP,ELISA
<b>Gene Name</b>	IRS1
<b>Protein Name</b>	Insulin receptor substrate 1
<b>Purification Process</b>	Protein A
<b>Specificity</b>	Endogenous
<b>Formulation</b>	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
<b>Source</b>	Monoclonal, Rabbit,IgG
<b>Dilution</b>	IHC 1:400-1:1000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
<b>Concentration</b>	0.5 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-15° C to -25° C/1 year(Do not lower than -25° C)
<b>Synonyms</b>	IRS1 ; Insulin receptor substrate 1 ; IRS-1
<b>Observed Band</b>	180kD
<b>Calculated Molecular Weight</b>	131kD
<b>Cell Pathway</b>	nucleus,cytoplasm,cytosol,plasma membrane,insulin receptor complex,caveola,intracellular membrane-bounded organelle,
<b>Tissue Specificity</b>	Epithelium,Eye,Skeletal muscle,
<b>Function</b>	Disease:Polymorphisms in IRS1 may be involved in the etiology of non-insulin-dependent diabetes mellitus (NIDDM) [MIM:125853].,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.,polymorphism:The Arg-971 polymorphism impairs the ability of insulin to stimulate glucose transport, glucose transporter translocation, and glycogen synthesis by affecting the PI3K/AKT1/GSK3 signaling pathway. The polymorphism at Arg-971 may contribute to the in vivo insulin resistance observed in carriers of this variant. Arg-971 could contribute to the risk for atherosclerotic cardiovascular diseases associated with non-insulin-dependent diabetes mellitus (NIDDM) by producing a cluster of insulin resistance-related metabolic





abnormalities. In insulin-stimulated human endothelial cells from carriers of the Arg-971 polymorphism, genetic impairment of the IRS1/PI3K/PDPK1/AKT1 insulin signaling cascade results in impaired insulin-stimulated nitric oxide (NO) release and suggested that this may be a mechanism through which the Arg-971 polymorphism contributes to the genetic predisposition to develop endothelial dysfunction and cardiovascular disease. The Arg-971 polymorphism not only reduces phosphorylation of the substrate but allows IRS1 to act as an inhibitor of PI3K, producing global insulin resistance. PTM:Phosphorylation of Tyr-896 is required for GRB2-binding. PTM: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. similarity:Contains 1 IRS-type PTB domain. similarity:Contains 1 PH domain. subunit:Interacts with the NPXY motif of tyrosine-phosphorylated IGF1R and INSR via the PTB domain. Binds to phosphatidylinositol 3-kinase p85 subunit via the phosphorylated YXXM motifs. Binds ROCK1. Binds to UBTF and PIK3CA in nuclear extracts (By similarity). Interacts with SOCS7. ,

### Background

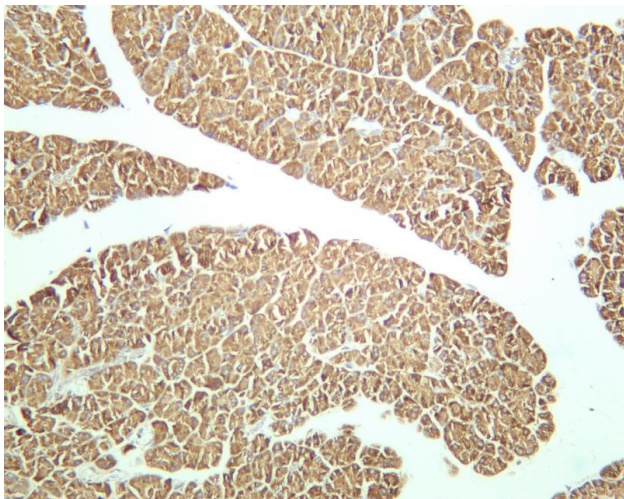
This gene encodes a protein which is phosphorylated by insulin receptor tyrosine kinase. Mutations in this gene are associated with type II diabetes and susceptibility to insulin resistance. [provided by RefSeq, Nov 2009],

### matters needing attention

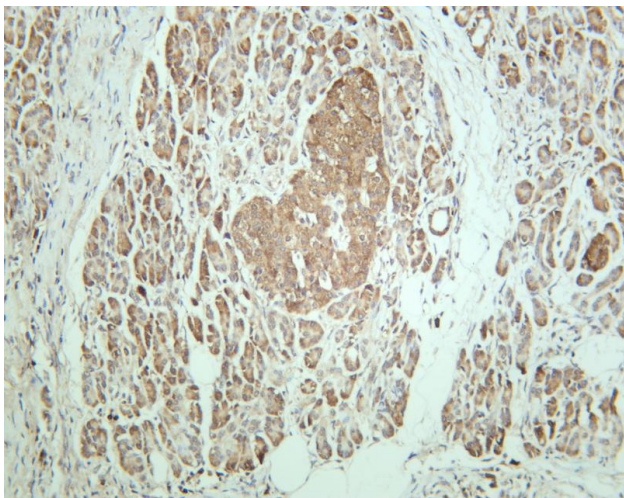
Avoid repeated freezing and thawing!

### Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Rat pancreas was stained with anti-I



Human pancreas was stained with anti-I

## 杭州臻优品生物科技有限公司

### 热销产品:

蛋白、一抗、抗体对、ELISA试剂盒、生化试剂盒  
CCK8试剂盒、QPCR检测试剂盒

### 检测服务:

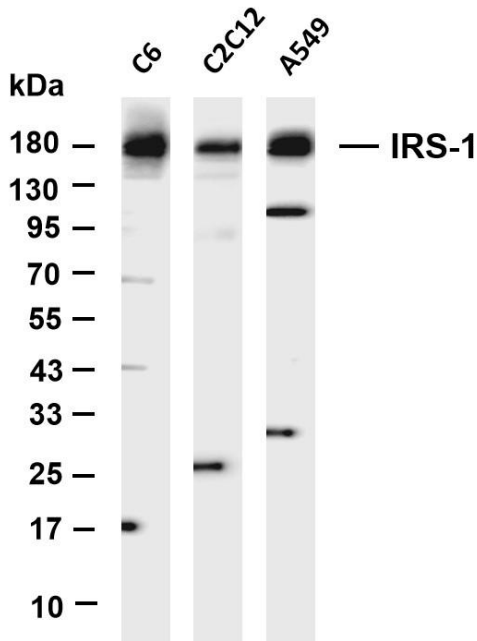
ELISA检测及定制服务 | 生化检测 | PCR、QPCR检测 | WB检测  
ICO-IP检测 | 切片 | 染色 | 免疫组化 | 免疫荧光 | 透射电镜全套  
| 宏基因组、转录组、基因组、蛋白组、代谢组测序



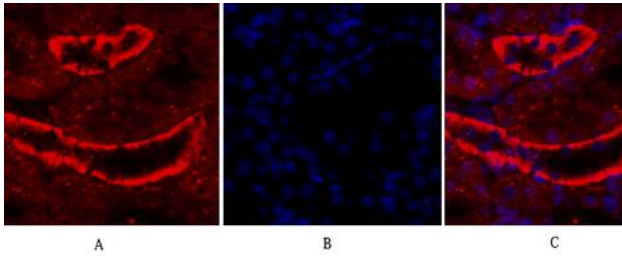
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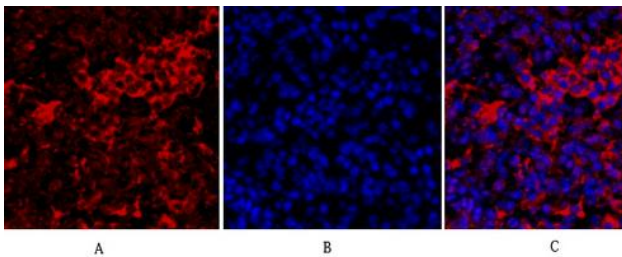
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Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-I



Immunofluorescence analysis of rat-kidney tissue. 1, IRS-1 Monoclonal Antibody (red) was diluted at 1:200 (4 °C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of mouse-lung tissue. 1, IRS-1 Monoclonal Antibody (red) was diluted at 1:200 (4 °C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B

