

产品名称: IRS-1 (phospho Ser312) Rabbit Polyclonal Antibody
产品货号: APRab04878



产品概述 (Summary)

产品名称 (Production Name)	IRS-1 (phospho Ser312) Rabbit Polyclonal Antibody
描述 (Description)	Rabbit polyclonal Antibody
宿主 (Host)	Rabbit
应用 (Application)	WB,IHC
种属反应性 (Reactivity)	Human,Mouse,Rat

产品性能 (Performance)

偶联物 (Conjugation)	Unconjugated
修饰 (Modification)	Phosphorylated
同种型 (Isotype)	IgG
克隆 (Clonality)	Polyclonal
形式 (Form)	Liquid
存放说明 (Storage)	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
储存溶液 (Buffer)	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
纯化方式 (Purification)	Affinity purification

免疫原信息 (Immunogen)

基因名 (Gene Name)	IRS1
别名 (Alternative Names)	IRS1; Insulin receptor substrate 1; IRS-1
基因 ID (Gene ID)	3667.0
蛋白 ID (SwissProt ID)	P35568.The antiserum was produced against synthesized peptide derived from human IRS-1 around the phosphorylation site of Ser312. AA range:279-328

产品应用 (Application)

稀释比 (Dilution Ratio)	WB 1:500-1:2000,IHC 1:50-1:300
蛋白分子量 (Molecular Weight)	170kDa

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研究背景 (Background)

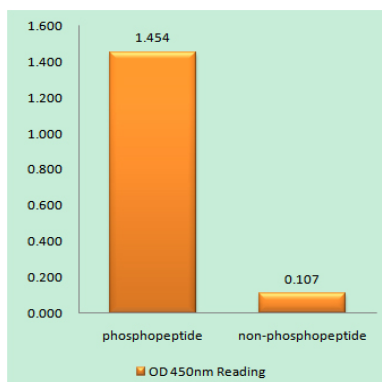
This gene encodes a protein which is phosphorylated by insulin receptor tyrosine kinase. Mutations in this gene are associated with type II diabetes and susceptibility to insulin resistance. [provided by RefSeq, Nov 2009],disease:Polymorphisms in IRS1 may be involved in the etiology of non-insulin-dependent 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.,

研究领域 (Research Area)

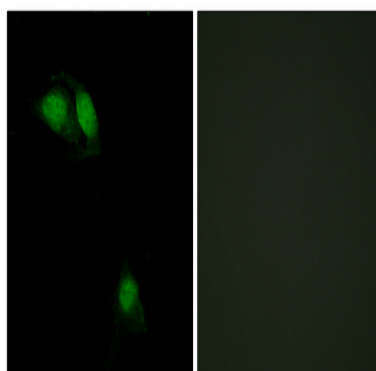
Neurotrophin;Insulin_Receptor;Adipocytokine;Type II diabetes mellitus;Aldosterone-regulated sodium reabsorption;

图片 (Image Data)

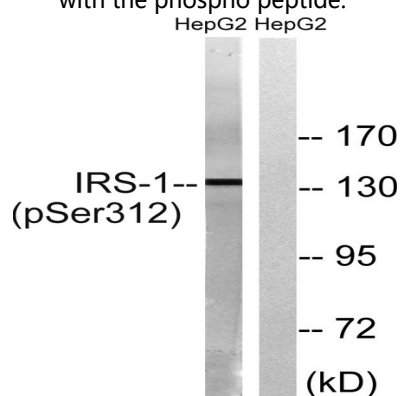
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Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using IRS-1 (Phospho-Ser312) Antibody

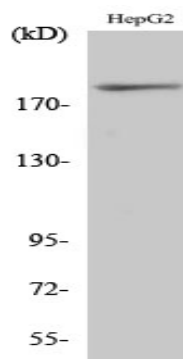


Immunofluorescence analysis of HeLa cells, using IRS-1 (Phospho-Ser312) Antibody. The picture on the right is blocked with the phospho peptide.

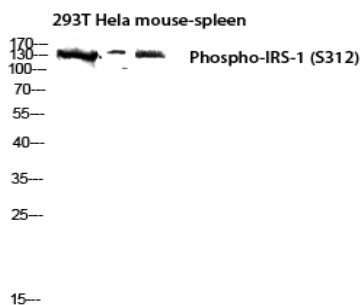


Western blot analysis of lysates from HepG2 cells, using IRS-1 (Phospho-Ser312) Antibody. The lane on the right is blocked with the phospho peptide.

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Western Blot analysis of various cells using Phospho-IRS-1 (S312) Polyclonal Antibody diluted at 1: 1000



Western blot analysis of 293T HeLa mouse-spleen lysis using Phospho-IRS-1 (S312) antibody. Antibody was diluted at 1:1000

注意事项 (Note)

For research use only .