

Datasheet for ABIN129580
anti-IRS1 antibody (pSer307)



[Go to Product page](#)

1 Image 1 Publication

Overview

Quantity:	100 µg
Target:	IRS1
Binding Specificity:	pSer307
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA

Product Details

Purpose:	IRS1 phospho S307 Antibody
Immunogen:	Immunogen: This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near amino acids 290-320 of human IRS1 protein. Immunogen Type: Conjugated Peptide
Isotype:	IgG
Cross-Reactivity (Details):	This affinity-purified antibody is directed against the phosphorylated form of human IRS1 protein at the pS307 residue.
Characteristics:	Synonyms: rabbit anti-IRS1 pS307 antibody, IRS-1, IRS 1, HIRS 1 antibody, HIRS-1 antibody, Insulin Receptor Substrate 1 antibody
Purification:	The product was affinity purified from monospecific antiserum by immunoaffinity purification.
Sterility:	Sterile filtered

Target Details

Target:	IRS1
Alternative Name:	IRS1 (IRS1 Products)
Background:	Background: Insulin Receptor Substrate 1 (IRS1) acts as a signaling molecule for IL-4, insulin and insulin-like growth factor-I (IGF-I) receptors. When phosphorylated by the insulin receptor, IRS1 binds specifically to various cellular proteins containing SH2 domains such as phosphatidylinositol 3-kinase p85 subunit or GRB2. When bound, IRS1 typically activates phosphatidylinositol 3-kinase p85 subunit. IRS1 interacts with both the NPXY motif of tyrosine-phosphorylated IGF1R and the INSR through the PTB domain. Serine phosphorylation of IRS1 is a mechanism for insulin resistance. Diseases associated with IRS1 include Diabetes Mellitus, Noninsulin-Dependent and Mixed Cell Adenoma. Anti-IRS1pS307 is useful for researchers interested in protein kinase binding, IL-2 pathways, and RET signaling.
Gene ID:	3667
NCBI Accession:	NP_005535
UniProt:	P35568
Pathways:	Fc-epsilon Receptor Signaling Pathway , EGFR Signaling Pathway , Neurotrophin Signaling Pathway , Positive Regulation of Peptide Hormone Secretion , Hormone Transport , Negative Regulation of Hormone Secretion , Response to Growth Hormone Stimulus , Carbohydrate Homeostasis , Regulation of Carbohydrate Metabolic Process

Application Details

Application Notes:	Immunohistochemistry Dilution: User Optimized Application Note: This affinity purified antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 130 kDa in size corresponding to phosphorylated IRS1 protein by western blotting in the appropriate cell lysate or extract. Minimal reactivity is observed against the non-phosphorylated form of the immunizing peptide. This antibody is phospho specific for pS307 of IRS1 protein. Western Blot Dilution: 1:250 - 1:1,500 ELISA Dilution: 1:2,000 - 1:10,000 Other: User Optimized
Restrictions:	For Research Use only

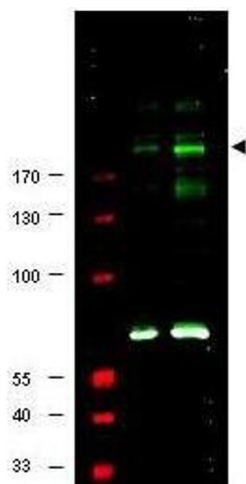
Handling

Format:	Liquid
Concentration:	0.76 mg/mL
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: None Preservative: 0.01 % (w/v) Sodium Azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiry Date:	12 months

Publications

Product cited in:	Shah, Hunter: "Turnover of the active fraction of IRS1 involves raptor-mTOR- and S6K1-dependent serine phosphorylation in cell culture models of tuberous sclerosis." in: Molecular and cellular biology , Vol. 26, Issue 17, pp. 6425-34, (2006) (PubMed).
-------------------	--

Images



Western Blotting

Image 1. Western blot using Affinity Purified anti-IRS1 pS307 antibody shows detection of a band at ~180 kDa believed to represent phosphorylated IRS1 (arrowhead). Lane 1 shows staining of human 293 cell lysate. Lane 2 shows staining of 293 cell lysate prepared from cells serum-starved for 18 h followed by treatment with 5 µg/ml of anisomycin for 30 min. The pronounced staining of the band at 180 kDa is not seen when the antibody was pre-

incubated with immunizing peptide prior to reaction (data not shown). The identity of the intensely reactive bands at ~70 kD in both lane 1 and 2 is unknown, although these bands were also competed out by pre-incubation with the immunizing peptide. Approximately 25 µg of each lysate was separated on a 4-20% Tris-Glycine gel by SDS-PAGE and transferred onto nitrocellulose. After blocking with 5% goat serum, 0.5% BLOTTO in PBS, the membrane was probed with the primary antibody diluted to 1:250. Reaction occurred overnight at 4° C followed by washes and reaction with a 1:10,000 dilution of 800 conjugated Gt-a-Rabbit IgG [H&L] MX for 45 min at room temperature (800 nm channel, green). Molecular weight estimation was made by comparison to prestained MW markers in lane M (700 nm channel, red). 800 fluorescence image was captured using the Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.