

Datasheet for ABIN1177074

anti-IRS1 antibody (pTyr896) (Alexa Fluor 647)[Go to Product page](#)**1** Image**4** Publications

Overview

Quantity:	50 tests
Target:	IRS1
Binding Specificity:	pTyr896
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This IRS1 antibody is conjugated to Alexa Fluor 647
Application:	Intracellular Staining (ICS)

Product Details

Brand:	BD Phosflow™
Immunogen:	Phosphorylated Human IRS-1 Peptide
Clone:	K9-211
Isotype:	IgG2a kappa
Purification:	Purified from tissue culture supernatant or ascites by affinity chromatography

Target Details

Target:	IRS1
Alternative Name:	IRS-1 (IRS1 Products)
Background:	The IRS (Insulin Receptor Substrate) proteins IRS-1, IRS-2, IRS-3, and IRS-4 are major

Target Details

substrates of the insulin receptor and the insulin-like growth factor-1 (IGF-1) receptor tyrosine kinases. IRS proteins contain an N-terminal pleckstrin homology (PH) domain, a phosphotyrosine-binding (PTB) domain, and multiple tyrosine phosphorylation sites in the C-terminus. The IRS-1 protein is widely expressed and, along with IRS-2, mediates somatic growth and carbohydrate metabolic responses to insulin. Following insulin receptor ligation, IRS-1 binds to the juxtamembrane region of the receptor via the PH and PTB domains and is tyrosine phosphorylated, which facilitates its interaction with SH2 domain-containing signaling proteins. Specifically, the phosphorylated tyrosine 896 (pY896) of human IRS-1 is a major binding site for the GRB2 (Growth-factor Receptor-Bound protein 2) adaptor protein. After IRS-1 activation, negative and positive feedback regulates dephosphorylation of its tyrosine sites, which ultimately regulates the magnitude and/or duration of the downstream pleiotropic responses to insulin and IGF-1. The K9-211 monoclonal antibody recognizes pY896 of human IRS-1. The orthologous phosphorylation sites of mouse and rat IRS-1 are Y891 and Y895, respectively.

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
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Application Details

Sample Volume:	20 µL
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Aqueous buffered solution containing BSA and ≤0.09 % 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
Storage Comment:	The antibody was conjugated to Alexa Fluor® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Publications

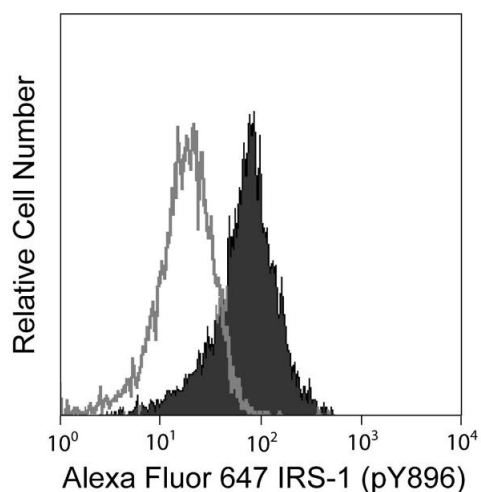
Product cited in: Gual, Le Marchand-Brustel, Tanti: "Positive and negative regulation of insulin signaling through IRS-1 phosphorylation." in: **Biochimie**, Vol. 87, Issue 1, pp. 99-109, (2005) ([PubMed](#)).

White: "IRS proteins and the common path to diabetes." in: **American journal of physiology. Endocrinology and metabolism**, Vol. 283, Issue 3, pp. E413-22, (2002) ([PubMed](#)).

Burks, White: "IRS proteins and beta-cell function." in: **Diabetes**, Vol. 50 Suppl 1, pp. S140-5, (2001) ([PubMed](#)).

Paz, Liu, Shorer, Hemi, LeRoith, Quan, Kanety, Seger, Zick: "Phosphorylation of insulin receptor substrate-1 (IRS-1) by protein kinase B positively regulates IRS-1 function." in: **The Journal of biological chemistry**, Vol. 274, Issue 40, pp. 28816-22, (1999) ([PubMed](#)).

Images



Flow Cytometry

Image 1.