

Datasheet for ABIN1177073

**anti-IRS1 antibody (pTyr896) (PE)**[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 PE |
| 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 ( <a href="#">IRS1 Products</a> )                                                |
| 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](#)

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 with R-PE under optimum conditions, and unconjugated antibody and free PE were removed. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

## Publications

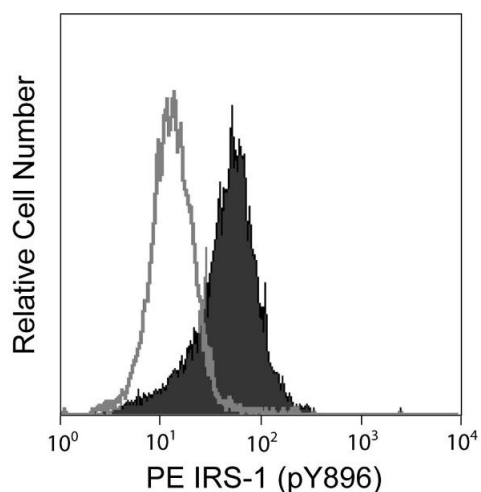
Product cited in: Gual, Le Marchand-Brustel, Tanti: "Positive and negative regulation of insulin signaling through IRS-1 phosphorylation." in: **Biochimie**, Vol. 87, Issue 1, pp. 99-109, (2005) ([PubMed](#)).

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.