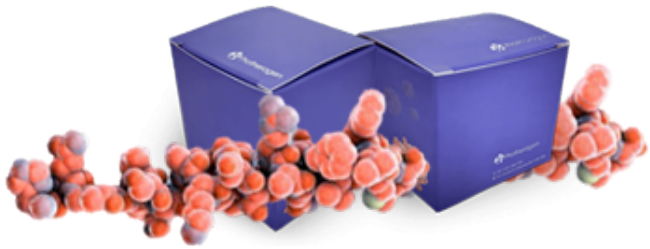
Protheragen
Obesity



Human insulin receptor substrate 1 (IRS-1) ELISA kit (0.312-20 ng/mL)

Cat. No.:	0126WXX-699
Assay Type:	Quantitative sandwich ELISA
Target Species:	Human
Assay Target:	IRS-1
Size:	24T; 48T; 96T

This product is for research use only and is not intended for diagnostic use.

Product Overview

Description	Human insulin receptor substrate 1 (IRS-1) ELISA kit (0.312-20 ng/mL) is an ELIS A-based *in vitro* research tool designed specifically for the quantitative detection of IRS-1 in human samples with a range of 0.312-20 ng/mL and a minimu m detectable dose (sensitivity) of 0.113 ng/mL. The kit is highly sensitive and easy to use.
Assay Principle	The ELISA analytical biochemical technique is based on IRS-1 antibody-IRS-1 anti gen interactions (immunosorbency) and an HRP colorimetric detection system to de tect IRS-1 antigen targets in samples.
Background	IRS-1 is a key adaptor protein that plays a central role in insulin signaling. W hen insulin binds to its receptor on the cell surface, the receptor is activated and phosphorylates tyrosine residues on IRS-1. This process transforms IRS-1 in to a signaling “relay station,” enabling it to bind with multiple downstream sig naling proteins such as phosphoinositide 3-kinase (PI3K). IRS-1 transmits insuli n signals from the cell membrane into the cell interior, thereby initiating a se ries of vital biological responses, including promoting glucose transport and gl ycogen synthesis. Studying the function and defects of IRS-1 is crucial for unde rstanding the pathological processes underlying obesity.
Synonyms	IRS1
Formula Weight	131,591 Da

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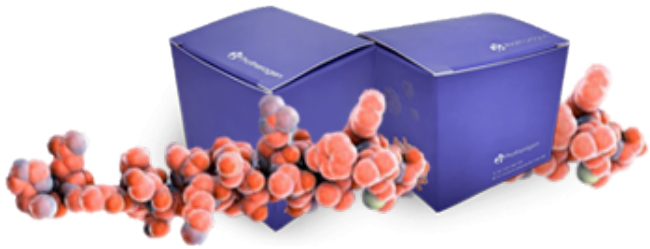

Applications	Human insulin receptor substrate 1 (IRS-1) ELISA kit (0.312-20 ng/mL) is used to quantify IRS-1 in serum, plasma, tissue homogenates, and cell lysates, cell cul ture supernatants, and other biological fluids of human, providing data to suppo rt research in a wide range of areas, including endocrinology, obesity, *etc.*
Research Area	Endocrinology; Obesity

Specification

Sample Type	Serum; Plasma; Tissue homogenates; Cell lysates; Cell culture supernatants; Othe r biological fluids
Detection Range	0.312-20 ng/mL
Sensitivity	0.113 ng/mL
Precision (Intra-assay)	CV<10%
Precision (Inter-assay)	CV<12%
Cross-reactivity	No significant cross-reactivity or interference was observed.
Storage	Store at 2-8°C.

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