Revision 1

#3015 Store at -20°C

Insulin Receptor Substrate Antibody Sampler Kit

1 Kit (5 x 20 microliters)

Cell Signaling TECHNOLOGY®

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Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Phospho-IRS-1 (Ser307) Antibody	2381	20 µl	180 kDa	Rabbit
Phospho-IRS-1 (Ser612) (C15H5) Rabbit mAb	3203	20 µl	180 kDa	Rabbit IgG
IRS-2 Antibody	4502	20 µl	185 kDa	Rabbit
Phospho-IRS-1 (Ser318) (D51C3) Rabbit mAb	5610	20 µl	180 kDa	Rabbit IgG
IRS-1 (D23G12) Rabbit mAb	3407	20 µl	180 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The Insulin Receptor Substrate Antibody Sampler Kit provides an economical means to investigate IRS-1 and IRS-2 signaling and phosphorylation within the cell. The kit contains enough antibody to perform two western blots with each primary antibody.

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Background

Insulin receptor substrate 1 (IRS-1) is one of the major substrates of the insulin receptor kinase (1). IRS-1 contains multiple tyrosine phosphorylation motifs that serve as docking sites for SH2-domain containing proteins that mediate the metabolic and growth-promoting functions of insulin (2-4). IRS-1 also contains over 30 potential serine/threonine phosphorylation sites. Ser307 of IRS-1 is phosphorylated by JNK (5) and IKK (6) while Ser789 is phosphorylated by SIK-2, a member of the AMPK family (7). The PKC and mTOR pathways mediate phosphorylation of IRS-1 at Ser612 and Ser636/639, respectively (8,9). Phosphorylation of IRS-1 at Ser1101 is mediated by PKCθ and results in an inhibition of insulin signaling in the cell, suggesting a potential mechanism for insulin resistance in some models of obesity (10).

Background References

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