

IRS1 Rabbit mAb

Catalog No: #49156



Package Size: #49156-1 50ul #49156-2 100ul

Orders: order@signalwayantibody.com

Support: tech@signalwayantibody.com

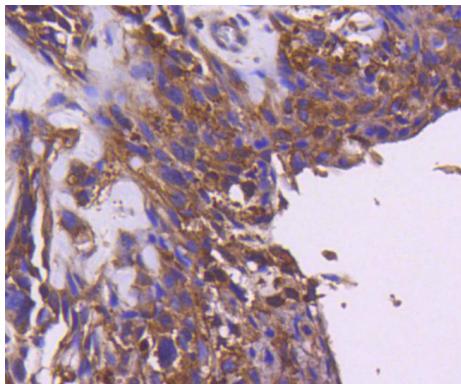
Description

Product Name	IRS1 Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal antibody
Clone No.	SD2046
Purification	ProA affinity purified
Applications	WB, ICC/IF, IHC
Species Reactivity	Hu
Immunogen Description	recombinant protein
Other Names	HIRS 1 antibody HIRS1 antibody Insulin receptor substrate 1 antibody IRS 1 antibody IRS-1 antibody IRS1 antibody IRS1_HUMAN antibody OTTHUMP00000164234 antibody
Accession No.	Swiss-Prot#:P35568
Calculated MW	170 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

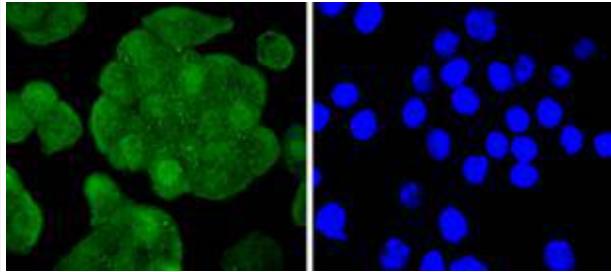
Application Details

WB: 1:1,000-1:2,000 IHC: 1:50-1:200ICC: 1:50-1:200

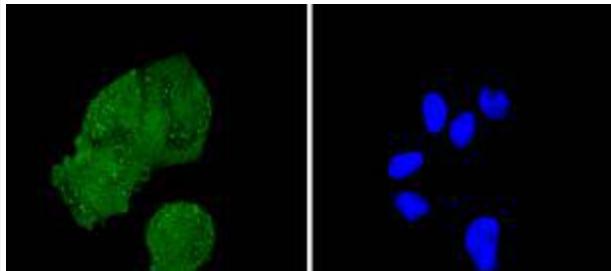
Images



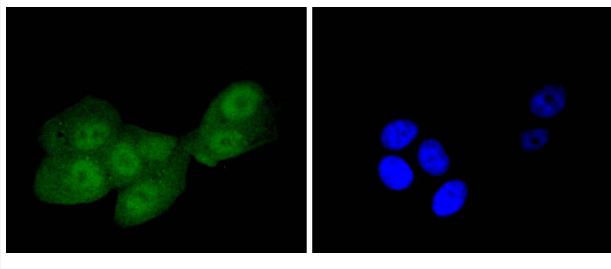
Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using anti-IRS1 antibody. Counter stained with hematoxylin.



ICC staining IRS1 in SW480 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining IRS1 in HeLa cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



ICC staining IRS1 in MCF-7 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

Background

The insulin receptor substrate-1 (IRS-1), a protein major substrate of the insulin receptor, is phosphorylated in response to stimulation of cells by insulin, insulin-like growth factor 1 (IGF-1) and interleukin 4 (IL-4). IRS-1 is phosphorylated on serine, threonine and tyrosine residues in a variety of tissues. An insulin-sensitive serine/threonine kinase casein kinase II mediates a portion of the insulin-stimulated serine/threonine phosphorylation of overexpressed IRS-1 *in vivo*. Thr 502 is identified as the major casein kinase II-catalyzed phosphorylation site in rat IRS-1, and Ser 99 is an additional phosphorylation site catalyzed by casein kinase II. Thus, casein kinase II-catalyzed phosphorylation of IRS-1 may be a component of the intracellular insulin signaling cascade. IRS-1 contains three putative binding sites for 14-3-3 (Ser 270, Ser 374 and Ser 641) and the motif around Ser 270 is located in the phosphotyrosine binding domain of IRS-1, which is responsible for the interaction with the insulin receptor. The association of 14-3-3 with IRS-1 increases significantly upon treatment with okadaic acid, a potent serine/ threonine phosphatase inhibitor. Therefore, the association of 14-3-3 protein may play a role in the regulation of insulin sensitivity by interrupting the association between the insulin receptor and IRS-1.

References

1. Lovly CM et al. Rationale for co-targeting IGF-1R and ALK in ALK fusion-positive lung cancer. *Nat Med* 20:1027-34 (2014).
2. Pan T et al. Cytohesins/ARNO: the function in colorectal cancer cells. *PLoS One* 9:e90997 (2014).

Note: This product is for in vitro research use only and is not intended for use in humans or animals.