ARG57804
anti-IRS1 phospho (Ser612) antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes IRS1 phospho (Ser612)
Tested Reactivity	Hu, Ms, Rat
Tested Application	IHC-P, WB
Specificity	The antibody detects endogenous levels of IRS-1 protein only when phosphorylated at Ser612.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	IRS1
Species	Human
Immunogen	Synthetic phosphopeptide around Ser612 of Human IRS-1.
Conjugation	Un-conjugated
Alternate Names	HIRS-1; Insulin receptor substrate 1; IRS-1

Application Instructions

Application table

Application	Dilution
IHC-P	1:50 - 1:200
WB	1:500 - 1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

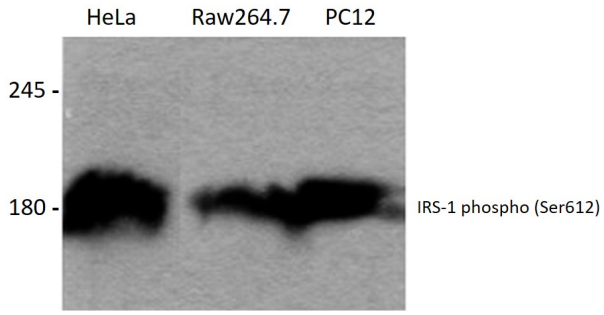
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Purity	> 95% (by SDS-PAGE)
Buffer	PBS (pH 7.2) and 0.05% Sodium azide.
Preservative	0.05% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

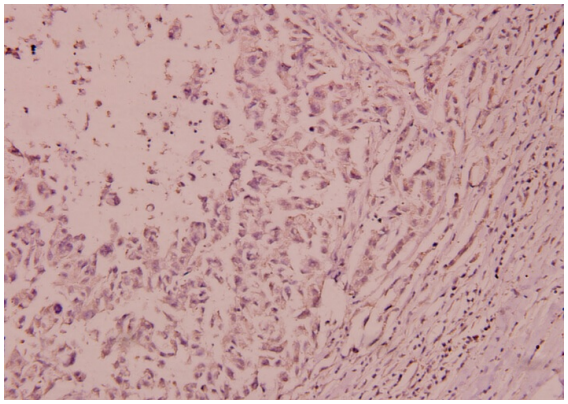
Gene Symbol	IRS1
Gene Full Name	insulin receptor substrate 1
Background	This gene encodes a protein which is phosphorylated by insulin receptor tyrosine kinase. Mutations in this gene are associated with type II diabetes and susceptibility to insulin resistance. [provided by RefSeq, Nov 2009]
Function	May mediate the control of various cellular processes by insulin. When phosphorylated by the insulin receptor binds specifically to various cellular proteins containing SH2 domains such as phosphatidylinositol 3-kinase p85 subunit or GRB2. Activates phosphatidylinositol 3-kinase when bound to the regulatory p85 subunit (By similarity). [UniProt]
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Controls and Markers antibody; Metabolism antibody; Neuroscience antibody; Signaling Transduction antibody; Glucose uptake: Insulin Receptor Dependent Pathway Study antibody
Calculated Mw	132 kDa
PTM	Serine phosphorylation of IRS1 is a mechanism for insulin resistance. Ser-312 phosphorylation inhibits insulin action through disruption of IRS1 interaction with the insulin receptor (By similarity). Phosphorylation of Tyr-896 is required for GRB2-binding (By similarity). Phosphorylated by ALK. Phosphorylated at Ser-270, Ser-307, Ser-636 and Ser-1101 by RPS6KB1; phosphorylation induces accelerated degradation of IRS1. Ubiquitinated by the Cul7-RING(FBXW8) complex in a mTOR-dependent manner, leading to its degradation: the Cul7-RING(FBXW8) complex recognizes and binds IRS1 previously phosphorylated by S6 kinase (RPS6KB1 or RPS6KB2). [UniProt]

Images



ARG57804 anti-IRS1 phospho (Ser612) antibody WB image

Western blot: HeLa, Raw264.7 and PC12 cells all treated with 100nM insulin for 30 min and stained with ARG57804 anti-IRS1 phospho (Ser612) antibody at 1:500 dilution.



ARG57804 anti-IRS1 phospho (Ser612) antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human breast carcinoma stained with ARG57804 anti-IRS1 phospho (Ser612) antibody at 1:100 dilution.