Human Phospho-IRS1 (S616) Antibody

Monoclonal Mouse IgG_{2A} Clone # 738710

Catalog Number: MAB39783

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IRS1 when phosphorylated at S616.
Source	Monoclonal Mouse IgG_{2A} Clone # 738710
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Phosphopeptide containing the human IRS1 S616 site Accession # P35568
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

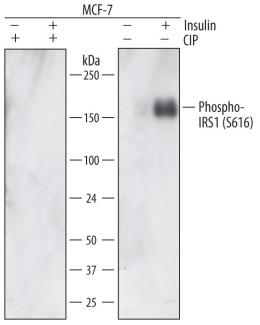
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below

DATA

Western Blot



Detection of Human Phospho-IRS1 (S616) by Western Blot. Western blot shows lysates of MCF-7 human breast cancer cell line untreated (-) or treated (+) with 1 µg/mL Insulin for 5 minutes and 300 U/mL CIP for 1 hour. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human Phospho-IRS1 (S616) Monoclonal Antibody (Catalog # MAB39783) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Phospho-IRS1 (S616) at approximately 150 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Human IRS1 (insulin receptor substrate 1) is a 150-180 kDa substrate that transmits signals from the insulin and IGF-I receptor to downstream signaling modulators. The 1242 amino acid (aa) human IRS1 contains a PH domain (aa 12-115), a PTB domain (aa 160-263) and ten PEST sequences (aa 340-1225). IRS1 may be proteolytically cleaved at Arg656-Val657, generating a 90 kDa and 79 kDa fragment. Upon insulin/IGF-I receptor activation, IRS1 is tyrosine phosphorylated, allowing its association with PI-3 kinase and GRB2. When PI-3 kinase and ERK1/2 are activated, insulin or angiotensin II can also stimulate phosphorylation on Ser616. The aa sequence surrounding pSer616 is identical between human, mouse and rat IRS-1.

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