

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
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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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