

DESCRIPTION

Species Reactivity	Human
Specificity	Detects Human Phospho-IRS1 (Y1179) in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2A} Clone # 744353
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Phosphopeptide containing the human IRS1 Y1179 site
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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.
Immunocytochemistry	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 160-180 kDa substrate intermediate between the insulin and IGF-I receptor, and downstream signaling modulators. Upon insulin/IGF-I receptor activation, IRS1 is tyrosine phosphorylated, allowing its association with PI-3 kinase and GRB2. Human IRS1 is 1242 amino acids (aa) in length. It contains a PH (pleckstrin homology) domain (aa 12-115), followed by a PTB (phosphotyrosine-binding) domain (aa 160-263) and ten PEST (Pro/Glu/Ser/Thr) regions (aa 340-1225). IRS1 may be proteolytically cleaved at Arg656-Val657, generating a 90 kDa and 79 kDa fragment. Insulin receptor-mediated phosphorylation of human IRS1 on Y1179, or its murine equivalent, Y1172, mediates IRS-1 interaction with SH2 domains such as that of the Src family kinase, Fyn, or the tyrosine phosphatase, SHP-2.

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