Human IRS1 Alexa Fluor® 532-conjugated Antibody

Monoclonal Mouse IgG_{2A} Clone # 738662

Catalog Number: FAB7314X

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IRS1 when phosphorylated at Y612 in direct ELISAs.
Source	Monoclonal Mouse IgG_{2A} Clone # 738662
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Phosphopeptide containing the human IRS1 Y612 site Accession # P35568
Conjugate	Alexa Fluor 532 Excitation Wavelength: 534 nm Emission Wavelength: 553 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 160-180 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. Phosphorylation on Y612 and Y632 is important for IRS1 to fully activate PI3K and translocate GLUT4 in respose to insulin. The sequence surrounding pTyr612 is identical between human and mouse IRS1.

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Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475