Mouse IGFBP-1 Alexa Fluor® 647-conjugated Antibody

Monoclonal Rat IgG_{2B} Clone # 176110

Catalog Number: FAB1240R

100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IGFBP-1 in direct ELISAs and Western blots. In Western blots, weak cross-reactivity with recombinant mouse (rm) IGFBP-5 is observed and no cross-reactivity with recombinant human (rh) IGFBP-1, rmIGFBP-2, rmIGFBP-3, rhIGFB
Source	Monoclonal Rat IgG_{2B} Clone # 176110
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse IGFBP-1 Ala26-Asn272 Accession # P47876
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

The insulin-like growth factor binding protein (IGFBP) family consists of six structurally related proteins that bind IGF with high affinity (1, 2). These proteins share conserved cysteine-rich N- and C- terminal regions that participate in IGF binding. IGFBPs regulate the bioavailability of IGFs and modulate their biological activities, both positively and negatively. Some IGFBPs also have intrinsic bioactivity that is IGF-independent. Post-transitional modifications of the IGFBPs, including glycosylation, phosphorylation and proteolysis, influence IGF binding affinities and tissue localization, affecting both the IGF-dependent and independent functions (1, 2). Mouse IGFBP-1 cDNA encodes a 272 amino acid (aa) precursor protein with a putative 25 aa signal peptide (3). Mature mouse IGFBP-1 contains potential phosphorylation and proteolytic cleavage sites, an Arg-Gly-Asp (RGD) integrin receptor recognition sequence, but lacks potential N-linked glycosylation sites. IGFBP-1 binds equally well to IGF-I and IGF-II. Phosphorylation of human IGFBP-1, but not rat IGFBP-1, increases IGF affinity. Mouse IGFBP-1 shares 67% and 93% aa sequence identity with human and rat IGFBP-1, respectively. IGFBP-1 is expressed in liver, decidua, and kidneys and is the most abundant IGFBP in amniotic fluid. Hepatic production of IGFBP-1 is down-regulated by insulin and up-regulated by glucocorticoids. Circulating IGFBP-1 levels are elevated under various catabolic conditions including bacterial or viral infections, trauma and diabetes (4). IGFBP-1 has been shown to either potentiate or inhibit the activities of IGF in a variety of cells. IGFBP-1, through its RGD motif, also interacts with α5β1 intergrin to stimulate changes in cell adhesion and migration in the absence of IGFs (1, 2).

PRODUCT SPECIFIC NOTICES

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