

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IGFBP-1 in direct ELISAs and Western blots. In direct ELISAs, less than 10% cross-reactivity with recombinant human IGFBP-1 and less than 1% cross-reactivity with recombinant mouse (rm) IGFBP-4, and rmlIGFBP-5 is obs
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse IGFBP-1 Ala26-Asn272 Accession # P47876
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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.
Immunohistochemistry	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-translational 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) residue 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 RDG motif, also interacts with α5β1 integrin to stimulate changes in cell adhesion and migration in the absence of IGFs (1, 2).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.