

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IGFBP-rp1/IGFBP-7 in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody does not cross-react with recombinant mouse (rm) IGFBP-1, -2, -3, -5, -6, rhIGFBP-4, or -7.
Source	Monoclonal Rat IgG _{2A} Clone # 292909
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse IGFBP-rp1/IGFBP-7 Ser28-Leu281 (Arg94Lys) Accession # A0A5E1
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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

Insulin-like growth factor (IGF) binding protein-related protein 1 (IGFBP-rp1), also known as IGF binding protein-7 (IGFBP-7) and Mac25 is a 31-37 kDa secreted glycoprotein that belongs to the IGFBP superfamily of molecules (1, 2). Members of this superfamily are characterized by the presence of 10-12 conserved cysteines in the first third of the molecule, and the partial conservation of an xCGCCxxC octapeptide motif that exists in an N-terminal IGFBP domain (1, 3). Mouse IGFBP-7 cDNA encodes a 281 amino acid (aa) precursor protein that contains a putative 25 aa signal peptide and a 256 aa mature region. The mature protein contains an N-terminal 43 aa IGFBP domain that is followed by a 52 aa Kazal-type serine proteinase inhibitor domain and a 105 aa C-terminal Ig-like C2-type domain (4, 5). The molecule is known to contain about 4 kDa of carbohydrate and believed to undergo phosphorylation (6). Mature mouse IGFBP-7 is 95% and 91% aa identical to mature rat and human IGFBP-7, respectively. Cells known to express IGFBP-7 include osteoblasts, select skeletal muscle fibers, visceral and vascular smooth muscle cells, breast epithelium, ciliated epithelium, renal tubular epithelium, astrocytes and oligodendroglia, and vascular endothelium in all tissues except brain (7). IGFBP-7 will bind both IGF-I and insulin, albeit at low affinity. When bound to IGF-I, it participates in growth promoting effects (8). Alternatively, IGFBP-7 by itself is an inhibitor of cell proliferation (6). Thus, its function is unclear. It is known to bind heparin, syndecan-1 and chemokines (8, 9). Based on human studies and aa conservation in relevant regions, mouse IGFBP-7 might be expected to undergo proteolytic cleavage extracellularly (8). This will create an 8 kDa, 72 aa subunit (containing the IGFBP domain) that is disulfide-linked to a 25 kDa, 184 aa C-terminal subunit. Cleavage will reduce IGF-I bonding activity and the promotion of IGF-dependent cell proliferation.

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.