

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IGFBP-rp1 in direct ELISAs.
Source	Monoclonal Goat IgG Clone # 40012B
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human IGFBP-rp1 Arg98-Arg277 Accession # AAA16187
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.

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

IGFBP-rp1, also known as Mac25/Angiomodulin (AGM), tumor-derived adhesion factor (TAF) and prostacyclin-stimulating factor (PSF), is a secreted protein that contains three protein domain modules. Human IGFBP-rp1 cDNA encodes 282 amino acid (aa) residue precursor protein with a putative 26 aa signal peptide. Mature IGFBP-rp1 is a glycosylated protein with an N-terminal IGFBP domain, followed by a Kazal-type serine proteinase inhibitor domain and a C-terminal immunoglobulin-like C2-type domain. The similarity of IGFBP-rp1 with the IGFBPs is confined to the N-terminal IGFBP domain, which contains all 12 of the conserved cysteine residues found in IGFBP-1 through 5. Human and mouse IGFBP-rp1 are highly homologous. Discounting a segment of 43 aa near the N-terminus that is missing in the mouse homologue, human and mouse IGFBP-rp1 share 94% aa sequence identity. IGFBP-rp1 is expressed in many normal tissues and in cancer cells. It is abundantly expressed in high endothelial venules (HEVs) of blood vessels in the secondary lymphoid tissues. The expression of IGFBP-rp1 is upregulated in senescing epithelial cells and by retinoic acid. IGFBP-rp1 binds IGF and insulin with very low affinity and has been shown to enhance the mitogenic actions of IGF and insulin. IGFBP-rp1 also has IGF/insulin-independent activities. It interacts with heparan sulfate proteoglycans, type IV collagen, and specific chemokines. IGFBP-rp1 supports weak cell adhesion, promotes cell spreading on type IV collagen, and stimulates the production of the potent vasodilator PGI₂. It modulates tumor cell growth and has also been implicated in angiogenesis. IGFBP-rp1 is proteolytically cleaved between lysine 97 and alanine 98. Cleaved IGFBP-rp1 has enhanced cell attachment activity but can no longer bind IGF/insulin (1-3).

PRODUCT SPECIFIC NOTICES

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