

DESCRIPTION

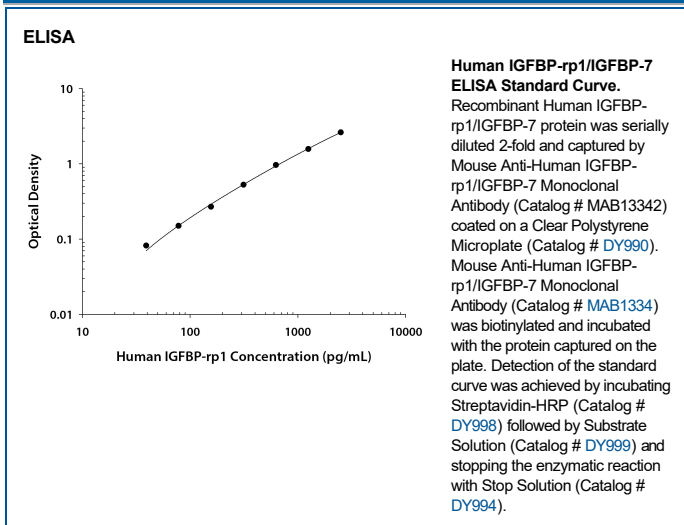
Species Reactivity	Human
Specificity	Detects human IGFBP-rp1/IGFBP-7 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2A} Clone # 192535
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human IGFBP-rp1/IGFBP-7 Asp30-Arg277 Accession # AAA16187
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

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.

ELISA	This antibody functions as an ELISA capture antibody when paired with Mouse Anti-Human IGFBP-rp1/IGFBP-7 Monoclonal Antibody (Catalog # MAB1334). <i>This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Human IGFBP-rp1/IGFBP-7 DuoSet ELISA Kit (Catalog # DY1334-05) for convenient development of a sandwich ELISA.</i>
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DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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) 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 IGFBP1 through 5. Human and mouse IGFBP-rp1 are highly homologous. 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).

References:

1. Hwa, V. *et al.* (1999) *Endocrinology Rev.* **20**:761.
2. Nagakubo, D. *et al.* (2003) *J. Immunol.* **171**:553.
3. Ahmed, S. *et al.* (2003) *Biochem. Biophys. Res. Commun.* **310**:612.