

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human IGFBP-1 in ELISAs and Western blots. In Western blots, detection of recombinant mouse IGFBP-1 is observed but no cross-reactivity with recombinant human (rh) IGFBP-2, rhIGFBP-3, rhIGFBP-4 or rhIGFBP-5 is observed.                                         |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 33627                                                                                                                                                                                                                             |
| <b>Purification</b>       | Protein A or G purified from ascites                                                                                                                                                                                                                                        |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human IGFBP-1                                                                                                                                                                                                                           |
| <b>Conjugate</b>          | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

|                                                |                                                                        |
|------------------------------------------------|------------------------------------------------------------------------|
| <b>ELISA Capture (Matched Antibody Pair)</b>   | Optimal dilution of this antibody should be experimentally determined. |
| <b>ELISA Detection (Matched Antibody Pair)</b> | Optimal dilution of this antibody should be experimentally determined. |
| <b>Neutralization</b>                          | Optimal dilution of this antibody should be experimentally determined. |
| <b>Western Blot</b>                            | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

The superfamily of insulin-like growth factor (IGF) binding proteins include the six high-affinity IGF binding proteins (IGFBP) and at least four additional low-affinity binding proteins referred to as IGFBP related proteins (IGFBP-rP). All IGFBP superfamily members are cysteine-rich proteins with conserved cysteine residues, which are clustered in the amino- and carboxy-terminal thirds of the molecule. IGFBPs modulate the biological activities of IGF proteins. Some IGFBPs may also have intrinsic bioactivity that is independent of their ability to bind IGF proteins. Post-translational modifications of IGFBP, including glycosylation, phosphorylation and proteolysis, have been shown to modify the affinities of the binding proteins to IGF.

Human IGFBP-1 cDNA encodes a 259 amino acid (aa) residue precursor protein with a putative 25 aa residue signal peptide that is processed to generate the 234 aa residue mature protein. IGFBP-1 contains an integrin receptor recognition sequence (RGD sequence) but lacks potential N-linked glycosylation sites. IGFBP-1 is expressed in liver, decidua, kidneys and is the most abundant IGFBP in amniotic fluid. Serum levels of IGFBP-1 are lowest after meals. Hepatocyte production of IGFBP-1 is regulated at the transcriptional level due to the affects of insulin and corticosteroids. IGFBP-1 binds equally well to IGF-I and IGF-II, with phosphorylated forms of IGFBP-1 exhibiting higher binding affinities.

## PRODUCT SPECIFIC NOTICES

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