

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Mouse                                                                                                                                                                                                                                                      |
| <b>Specificity</b>                                                                                                                                                                                      | Detects mouse IGFBP-5 in ELISAs and Western blots. In sandwich ELISAs, less than 3% cross-reactivity with recombinant human IGFBP-5 is observed, and less than 0.3% cross-reactivity with recombinant mouse (rm) IGF-I, rmIGF-II, rmIGFBP-1, rmIGFBP-2, rm |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Goat IgG                                                                                                                                                                                                                                        |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                                                                                                                                                                                  |
| <b>Immunogen</b>                                                                                                                                                                                        | Mouse myeloma cell line NS0-derived recombinant mouse IGFBP-5<br>Val15-Glu271<br>Accession # Q3UQV0                                                                                                                                                        |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm                                                                                                                                                                        |
| <b>Formulation</b>                                                                                                                                                                                      | 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.

|                                                |                                                                        |
|------------------------------------------------|------------------------------------------------------------------------|
| <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>Western Blot</b>                            | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</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 IGFBPs, including glycosylation, phosphorylation and proteolysis, have been shown to modify the affinities of the binding proteins to IGF.

Mouse IGFBP-5 cDNA encodes a 271 amino acid (aa) residue precursor protein with a putative 19 aa residue signal peptide that is processed to generate the 252 aa residue mature protein. Mouse, human and rat IGFBP-5 share 97% identity. IGFBP-5 is expressed by fibroblasts, myoblasts and osteoblasts, making it the predominant IGFBP found in bone extracts. IGFBP-5 has a strong affinity for hydroxyapatite, allowing it to bind to bone cells. When bound to extracellular matrix, IGFBP-5 is protected from proteolysis and potentiates IGF activity, but when it is soluble, IGFBP-5 is cleaved to a biologically inactive 21 kDa fragment.

## PRODUCT SPECIFIC NOTICES

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