# Human IGFBP-3 Antibody

Monoclonal Mouse $IgG_{2B}$ Clone # 84728

Catalog Number: MAB305

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Human |
| **Specificity** | Detects human IGFBP-3 in ELISAs and Western blots. In sandwich immunoassays, less than 0.25% cross-reactivity with recombinant human (rh) IGF-I R, rhIGFBP-1, rhIGFBP-2, rhIGFBP-4, rhIGFBP-5, and rhIGFBP-6 is observed. |
| **Source** | Monoclonal Mouse $IgG_{2B}$ Clone # 84728 |
| **Purification** | Protein A or G purified from hybridoma culture supernatant |
| **Immunogen** | Mouse myeloma cell line NS0-derived recombinant human IGFBP-3<br>Gly28-Lys291<br>Accession # CAA46087 |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS. |

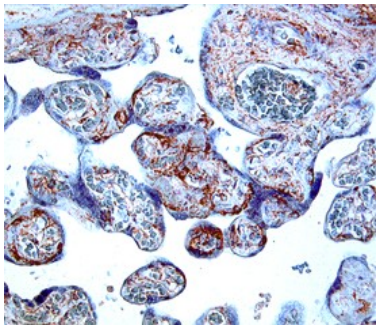
## APPLICATIONS

**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.*

| | Recommended Concentration | Sample |
|---|---|---|
| **Western Blot** | 1 µg/mL | Recombinant Human IGFBP-3 (Catalog # 675-B3) |
| **Immunohistochemistry** | 8-25 µg/mL | See Below |
| ***Human IGFBP-3 Sandwich Immunoassay*** | | **Reagent** |
| **ELISA Capture** | 2-8 µg/mL | Human IGFBP-3 Antibody (Catalog # MAB305) |
| **ELISA Detection** | 0.1-0.4 µg/mL | Human IGFBP-3 Biotinylated Antibody (Catalog # BAF675) |
| **Standard** | | Recombinant Human IGFBP-3 (Catalog # 675-B3) |

## DATA

**Immunohistochemistry**



**IGFBP-3 in Human Placenta.** IGFBP-3 was detected in immersion fixed paraffin-embedded sections of human placenta using Mouse Anti-Human IGFBP-3 Monoclonal Antibody (Catalog # MAB305) at 8 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-AEC Cell & Tissue Staining Kit (red; Catalog # CTS003) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

## 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.<br>*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.**<br>● 12 months from date of receipt, -20 to -70 °C as supplied.<br>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |



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## 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.

Human IGFBP-3 cDNA encodes a 291 amino acid (aa) residue precursor protein with a putative 27 aa residue signal peptide that is processed to generate the 264 aa residue mature protein with three potential N-linked and two potential O-linked glycosylation sites. Human IGFBP-3 is expressed in multiple tissues. The highest expression level is found in the non-paranchymal cells of the liver. Expression levels are also higher during extrauterine life and peak during puberty. Human IGFBP-3 is the major IGF binding protein in plasma where it exists in a ternary complex with IGF-I or IGF-II and the acid-labile subunit (ALS).

**References:**

1. Jones, J.I. and D.R. Clemmons (1995) Endocrine Rev. **16**:3.
2. Kelley, K.M. *et al*. (1996) Int. J. Biochem. Cell Biol. **28**:619.
3. Spagnoli, A. and R.G. Rosenfeld (1997) Curr. Op. Endocrinology and Diabetes **4**:1.



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