

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IGFBP-6 in ELISAs and Western blots. In sandwich immunoassays, less than 0.2% cross-reactivity with recombinant human (rh) IGF-I, rhIGF-II, rhIGF-IsR, rhIGFBP-1, rhIGFBP-2, rhIGFBP-3, rhIGFBP-4, rhIGFBP-5 and recombinant mouse IGFBP-6 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human IGFBP-6 (R&D Systems, Catalog # 876-B6) Ala25-Gly240 Accession # NP_002169
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

## 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>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Human IGFBP-6 (Catalog # 876-B6)
<b>Human IGFBP-6 Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	2-8 µg/mL	Human IGFBP-6 Antibody (Catalog # MAB8761)
<b>ELISA Detection</b>	0.1-0.4 µg/mL	Human IGFBP-6 Biotinylated Antibody (Catalog # BAF876)
<b>Standard</b>		Recombinant Human IGFBP-6 (Catalog # 876-B6)

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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-6 cDNA encodes a 240 amino acid (aa) residue precursor protein with a putative 24 aa residue signal peptide that is processed to generate the 216 aa residue mature protein that is O-glycosylated. IGFBP-6 is expressed in ovarian cells, prostatic cells, and fibroblasts. IGFBP-6 is found predominantly in CSF and serum. IGFBP-6 binds preferentially to IGF-II, exhibiting a 2-fold higher affinity for IGF-II than for IGF-I.

### 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.