

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IGFBP-2 in direct ELISAs and Western blots. In Western blots, shows less than 1% cross-reactivity with rhIGFBP-1, rhIGFBP-3, rhIGFBP-4, rhIGFBP-5, and rhIGFBP-6.
Source	Monoclonal Mouse IgG ₁ Clone # 92326
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human IGFBP-2 Glu40-Gln328 Accession # CAA34373
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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human IGFBP-2 (Catalog # 674-B2) under non-reducing conditions only
Human IGFBP-2 Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Human IGFBP-2 Antibody (Catalog # MAB6741)
ELISA Detection Standard	0.1-0.4 µg/mL	Human IGFBP-2 Biotinylated Antibody (Catalog # BAF674) Recombinant Human IGFBP-2 (Catalog # 674-B2)

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

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-2 cDNA encodes a 328 amino acid (aa) residue precursor protein with a putative 39 aa residue signal peptide that is processed to generate the 289 aa residue mature protein. IGFBP-2 contains an integrin receptor recognition sequence (RGD sequence) but lacks potential N-linked glycosylation sites. During development, IGFBP-2 is expressed in a number of tissues. The highest expression level is found in the central nervous system. In adults, high expression levels are also detected in the central nervous system and in a number of reproductive tissues. IGFBP-2 binds preferentially to IGF II, exhibiting a 2-10 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.