Recombinant Human IGFBP-6

Catalog Number: 876-B6

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived Ala25-Gly240, with an N-terminal Met Accession # NP_002169
N-terminal Sequence Analysis	Met
Predicted Molecular Mass	23 kDa

SPECIFICATIONS

SDS-PAGE	34 kDa, reducing conditions
Activity	Measured by its ability to inhibit the biological activity of IGF-I or IGF-II on MCF−7 human breast cancer cells. Karey, K.P. *et al.* (1988) Cancer Research **48**:4083. The ED_{50} for this effect is typically 0.1−0.4 µg/mL in the presence of 14 ng/mL rhIGF-II.
Endotoxin Level	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>97%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in Acetonitrile and TFA. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 100 µg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 3 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-transitional 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.

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