Insulin-like Growth Factor Binding Protein-6 human recombinant, expressed in mouse NSO cells

Catalog Number I9029

Storage Temperature –20 °C

Synonym: IGFBP-6

Product Description
Insulin-like Growth Factor Binding Protein-6 (IGFBP-6) is produced from a DNA sequence encoding human IGFBP-6 fused to the signal peptide of CD33.1 Met17 from the CD33 signal peptide is retained in recombinant mature human IGFBP-6. Human IGFBP-6, a 217 amino acid protein, has a calculated molecular mass of ∼23 kDa. Due to glycosylation, the recombinant protein migrates as a 34 kDa protein under reducing conditions.

Insulin-like growth factor binding protein-6 (IGFBP-6) is a member of the superfamily of insulin-like growth factor (IGF) binding proteins which include six high-affinity IGF binding proteins (IGFBP) and at least four low-affinity binding proteins referred to as IGFBP related proteins (IGFBP-rP). The IGFBP members are cysteine-rich proteins with conserved cysteine residues, clustered in the amino-terminal and the carboxy-terminal regions of the molecule.

IGFBPs hold a central position in IGF ligand-receptor interactions through influences on both the bioavailability and distribution of IGFs in the extracellular environment.4 IGFBPs will either inhibit or enhance the biological activities of IGF or act in an IGF-independent manner. Post-translational modification of IGFBPs, including phosphorylation and proteolysis, will modify the affinities of the binding proteins for IGF and may indirectly regulate IGF actions.

Insulin-like growth factor binding protein-6 (IGFBP-6) is expressed in ovarian cells, prostatic cells, and fibroblasts. It is found predominantly in cerebral spinal fluid and serum. IGFBP-6 binds to IGF-II with a 2-fold higher affinity than for IGF-I.

The product is lyophilized from a 0.2 µm filtered solution in 30% acetonitrile and 0.1% TFA.

The bioactivity of Insulin-like growth factor binding protein-6 (IGFBP-6) is measured by its ability to inhibit the biological activity of recombinant human IGF-II on MCF-7 cells.4

Purity: >97% (SDS-PAGE, visualized by silver stain)

Endotoxin level: <1.0 EU per 1 µg of the protein (LAL [Limulus amebocyte lysate] method)

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions
Reconstitute the contents of the vial using sterile phosphate buffered saline containing at least 0.1% human serum albumin or bovine serum albumin. Prepare a stock solution ≥25 µg/mL.

Storage/Stability
Store at –20 °C. Upon reconstitution, the product may be stored at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Do not store in a frost-free freezer.

References