

# Recombinant Bovine Insulin Like Growth Factor Binding Protein-2 (IGFBP-2)

## Certificate of Analysis and Data Sheet

➤ <b>Source:</b> E.Coli	➤ <b>Catalog No.</b> CTK-301
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### ➤ **Background:**

Insulin Like Growth Factor Binding Protein-2 is one of the six homologous proteins that specifically bind insulin-like growth factors and modulate their mitogenic and metabolic actions. IGFBP-2 is observed mainly in brain and liquor, showing complex patterns of gene expression during postnatal brain development. Elevated levels IGFBP-2 have been observed in the serum of prostate cancer patients. IGFBP-2 expression does not depend on Growth hormone.

### ➤ **Description :**

Recombinant bovine IGFBP-2 produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 284 amino acids and having a molecular mass of 30776 Dalton.

Recombinant bovine IGFBP-2 is purified by proprietary chromatographic techniques.

### ➤ **Physical Appearance:**

Sterile Filtered White Lyophilized (freeze-dried) powder.

### ➤ **Formulation:**

IGFBP-2 was lyophilized with no additives.

### ➤ **Solubility:**

It is recommended to reconstitute the lyophilized bovine IGFBP-2 in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### ➤ **Stability:**

Lyophilized IGFBP-2 although stable at room temperature for 2 weeks, should be stored desiccated below -18 C. Upon reconstitution bovine IGFBP-2 should be stored at 4 C between 2-7 days and for future use below -18 C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please avoid freeze-thaw cycles.**

➤ **Purity:**

Greater than 98.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This Insulin Like Growth Factor Binding Protein-2 is fully biologically active when compared to standards. The ED<sub>50</sub>, calculated by IGF-I Binding Assay was found to be less than 10 nM.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of IGFBP-2.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm.

2. Analysis by RP-HPLC, using a standard solution of IGFBP-2 as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.