

# Recombinant Human Insulin-like Growth Factor Binding Protein 4

**Cat. No.** IGFBP4-2717H    **Lot. No.** (See product label)

## SPECIFICATION

**Product Overview**      Recombinant Human Insulin-like Growth Factor Binding Protein 4 is expressed in yeast.

**Species**                      Human

**Source**                        Yeast

**Description**                Insulin-like growth factor-binding proteins (IGFBPs) control bioavailability, activity, and distribution of insulin-like growth factor (IGF) through high-affinity IGFBP/IGF complexes. Six high-affinity IGF-binding proteins (IGFBP-1 to -6) have been identified, and IGFBP4, the smallest IGFBP expressed by a wide range of cell types, exists in both non-glycosylated and N-glycosylated forms in all biological fluids. Structurally consisting of an IGFBP domain and a thyroglobulin type-I domain, IGFBP4 binds IGF-I and IGF-II with similar affinities as a transport protein and modulates their biological effects. Increasing evidences indicate that IGFBP4 inhibits IGF-induced cellular growth both in vitro and in vivo. As an important member of the IGF system, IGFBP4 is involved in a wide range of biological processes including reproductive physiology, bone formation, renal pathophysiology and carcinomas.

**Molecular Weight**        24,000 daltons.

**Purity**                         The material has been judged to be >90% pure, as determined by SDS gel electrophoresis.

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|                            |  |
|----------------------------|--|
| <b>Biological Activity</b> | Binding activity of human IGF-BP 4 is determined by the inhibition activity of both IGF-I and IGF-II.  |
| <b>Stability</b>           | Lyophilized human IGF-BP 4 is stable at 4 °C for at least one year.  |
| <b>Formulation</b>         | Lyophilized powder.  |
| <b>Storage</b>             | Upon receipt, the material should be stored at 4 °C. Reconstitution of lyophilized IGF-BP 4 is best in water or buffer near neutral pH. After reconstitution, storage in aliquots at minus 80 °C is recommended. |

## GENE INFORMATION

|                            |   |
|----------------------------|---|
| <b>Gene Name</b>           | IGFBP4 insulin-like growth factor binding protein 4 [ Homo sapiens ]  |
| <b>Synonyms</b>            | insulin-like growth factor binding protein 4; BP-4; IBP4; IGFBP-4; HT29-IGFBP; IGFBP4; insulin-like growth factor binding protein 4; IGF-binding protein 4; insulin-like growth factor-binding protein 4; IBP-4 |
| <b>Gene ID</b>             | 3487  |
| <b>mRNA Refseq</b>         | NM_001552   |
| <b>Protein Refseq</b>      | NP_001543   |
| <b>MIM</b>                 | 146733  |
| <b>UniProt ID</b>          | P22692  |
| <b>Chromosome Location</b> | 17q12-q21.1   |

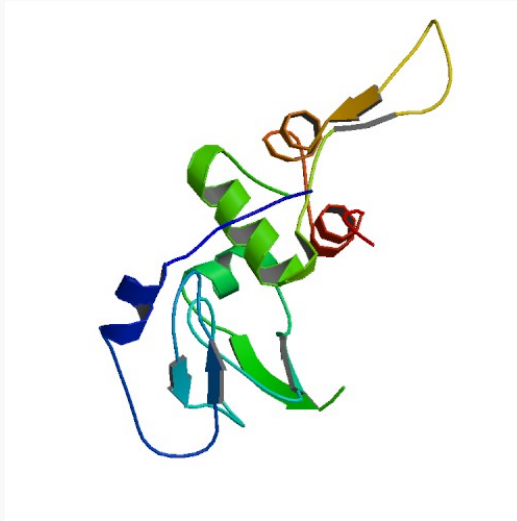
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|                 |                                    |
|-----------------|------------------------------------|
| <b>Pathway</b>  | Diabetes pathways                  |
| <b>Function</b> | insulin-like growth factor binding |

PDB rendering based  
on 1wqj.



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