



# Recombinant Protein Technical Manual

## Recombinant Human IGFBP-7/IGFBP7 Protein (His Tag)

RPES1968

### Product Data:

**Product SKU:** RPES1968

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** Q16270

### Protein Information:

**Molecular Mass:** 27.3 kDa

**AP Molecular Mass:** 30-35 kDa

**Tag:** C-His

**Bio-activity:**

**Purity:** > 95% as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Insulin-like growth factor-binding protein 7;IGFBP7;IGF-binding protein 7;IGFBP-rP1;MAC25 protein;Tumor-derived adhesion factor;TAF

## Immunogen Information:

**Sequence:** Ser27-Leu282

## Background:

Insulin-like growth factor-binding protein 7(IGFBP-7) is a secreted glycosylated protein that contains three protein domain modules. IGFBP7 contains an N-terminal IGFBP domain, followed by a Kazal-type serine proteinase inhibitor domain and a C-terminal immunoglobulin-like C2-type domain. Human and mouse IGFBP7 are highly homologous and share 94% aa sequence identity. It is expressed in many normal tissues and in cancer cells. It is abundantly expressed in high endothelial venules (HEVs) of blood vessels in the secondary lymphoid tissues. It binds IGF and insulin with very low affinity and has been shown to enhance the mitogenic actions of IGF and insulin. IGFBP7 also has IGF/insulin-independent activities. It interacts with heparan sulfate proteoglycans, type IV collagen, and specific chemokines. It supports weak cell adhesion, promotes cell spreading on type IV collagen, and stimulates the production of the potent vasodilator PGI<sub>2</sub>. It modulates tumor cell growth and has also been implicated in angiogenesis.