Data Sheet (Cat.No.TMPY-02533)

TargetMol

IGFBP-7 Protein, Human, Recombinant (aa 30-282, His)

General Information

Synonyms:	insulin-like growth factor binding protein 7;PSF;IGFBP-7;FSTL2;MAC25;TAF;RAMSVPS;IGFBP-7v;AGM;IBP-7;IGFBPRP1
Protein Construction:	A DNA sequence encoding the human IGFBP7 (Q16270) (Asp 30-Leu 282) was fused with a polyhistidine tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q16270
Molecular Weight:	28.6 kDa (predicted); 36 kDa (reducing conditions)

QC Testing

Biological Activity:	Immobilized Human IGFBP7 His at 2 μg/ml (100 μl/well) can bind Human CD93 (hFc Tag). The EC50 is 60-400 ng/ml.
Purity:	> 92 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Insulin-like growth factor-binding protein 7 (IGFBP7) is a member of the IGFBP family. It has been identified in colorectal adenocarcinoma (CRC) cell lines. The Insulin-like growth factor-binding protein also known as IGFBP serves as a carrier protein for Insulin-like growth factor 1. IGFBPs are distinct but are sharing regions with strong homology. All members of the IGFBP family bind IGF-I and IGF-II with about equal affinity. Insulin-like growth

factor (IGF) binding proteins (IGFBPs) have been shown to either inhibit or enhance the action of IGF or act in an IGF-independent manner in the prostate. IGFBP7 could inhibit cell growth, decrease soft agar colony formation activity, and induce apoptosis in RKO and SW620 cells. There is mounting evidence that the structure of the IGFBP proteins plays a key role in the regulation of IGF bioavailability, by modulating its molecular size, capillary membrane permeability, target tissue specificity, cell membrane adherence, and IGF affinity.

Reference

Oh Y,et al.(1996) Synthesis and characterization of insulin-like growth factor-binding protein (IGFBP)-7. Recombinant human mac25 protein specifically binds IGF-I and -II. J Biol Chem. 271(48): 30322-5.

Wilson EM,et al.(1997) Generation and characterization of an IGFBP-7 antibody: identification of 31kD IGFBP-7 in human biological fluids and Hs578T human breast cancer conditioned media. J Clin Endocrinol Metab. 82(4): 1301-3.

Lin J,et al.(2007) Methylation patterns of IGFBP7 in colon cancer cell lines are associated with levels of gene expression. J Pathol. 212(1): 83-90.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481