

# Recombinant Human Insulin-like Growth Factor-Binding Protein 5 (Human IGF-BP5)

## Product Information

Product Name	Cat#	Size
Recombinant Human Insulin-like Growth Factor-Binding Protein 5 (Human IGF-BP5)	92204ES08	5µg
	92204ES60	100µg
	92204ES76	500µg

## Product Description

IGF-BPs control the distribution, function and activity of IGFs in various cell tissues and body fluids. Currently, there are seven named IGF-BPs that form high affinity complexes with both IGF-I and IGF-II. IGF-BP5 is a 28.6 kDa, cysteine-rich, secreted protein produced by vascular smooth muscle cells. It is the major IGF-binding protein present in bone tissue and helps potentiate the action of IGF-I on smooth muscle cells, fibroblasts, and osteoblasts. Data shows that IGFBP-5 acts as a growth inhibitor and pro-apoptotic agent in breast cancer cells. IGFBP-5-overexpressing mice show an increase in neonatal mortality, reduced female fertility, whole-body growth inhibition, and retarded muscle development. Recombinant Human IGF-BP5 is a 28.6 kDa protein consisting of 253 amino acid residues.

## Product Properties

<b>Synonyms</b>	Human IGF-BP5
<b>Accession</b>	P24593
<b>GeneID</b>	3488
<b>Source</b>	E.coli-derived HumanIGF-BP5 protein,Leu21-Glu272.
<b>Molecular Weight</b>	Approximately 28.6 kDa.
<b>AA Sequence</b>	LGSFVHCEPC DEKALSMCPP SPLGCELVKE PGCGCCMTCA LAEGQSCGVY TERCAQGLRC LPRQDEEKPL HALLHGRGVC LNEKSYREQV KIERDSREHE EPTTSEMAEE TYSPIKIFRPK HTRISELKAE AVKKDRRKKL TQSKFVGGAE NTAHPRIISA PEMRQESEQG PCRRHMEASL QELKASPRMV PRAVYLPNCD RKGIFYKRKQC KPSRGRKRG I CWCVDKYGMK LPGMEYVDGD FQCHTFDSSN VE
<b>Tag</b>	None
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Purity</b>	> 96 % by SDS-PAGE and HPLC analyses. Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by its ability to inhibit
<b>Biological Activity</b>	IGF-II induced proliferation of MCF-7 cells is less than 0.4 µg/mL, corresponding to a specific activity of > 2500 IU/mg in the presence of 15 ng/mL of rHuIGF-II.
<b>Endotoxin</b>	< 0.1 EU per 1µg of the protein by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 10 mM Sodium Citrate, pH 3.0. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
<b>Reconstitution</b>	Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

## **Shipping and Storage**

The products are shipped with ice pack and can be stored at  $-20^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$  for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

## **Cautions**

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only.