

IGFBP-5 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	IGFBP-5;IGF-binding protein 5;BP-5;Insulin-like growth factor-binding protein 5
Protein Construction:	Leu20-Glu271
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q07079
Molecular Weight:	38 KDa (reducing condition)
AA Sequence:	Leu20-Glu271

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 90% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM PB, 150 mM NaCl, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

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

Mouse Insulin-like growth factor-binding protein 5(IGFBP-5) belongs to the superfamily of insulin-like growth factor (IGF) binding proteins. It contains 1 IGFBP N-terminal domain and 1 thyroglobulin type-1 domain. Mouse IGFBP-5 shows 97% aa sequence identity with those of human and rat IGFBP-5. It is expressed mostly in kidney, uterus and gastrocnemius muscle. It also expressed by fibroblasts, myoblasts and osteoblasts, making it the predominant IGFBP found in bone extracts. IGFBP-5 has a strong affinity for hydroxyapatite, allowing it to bind to

bone cells. When bound to extracellular matrix, IGFBP-5 is protected from proteolysis and potentiates IGF activity, but when it is soluble, IGFBP-5 is cleaved to a biologically inactive 21 kDa fragment. IGF-binding proteins prolong the half-life of the IGFs and have been shown to either inhibit or stimulate the growth promoting effects of the IGFs on cell culture. They alter the interaction of IGFs with their cell surface receptors.

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