Human Growth Hormone Binding Protein, Recombinant, His-Tag

Synonyms: Growth Hormone Receptor, Growth Hormone Binding Protein, Somatotropin Receptor GH Receptor, Serum Binding Protein, GHBP, GHIP.

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order#	Lot#	Expiry Date
2 µg	4760.952.002		
10 µg	4760.952.010		
1 mg	4760.952.199		

Please enquire for bulk quantities and other vial sizes.

Description

Recombinant Human Growth Hormone Binding Protein (GHBP), His-Tag, produced in Sf9 insect cells is a single, glycosylated, polypeptide chain containing 254 amino acids (19-264a.a.) and having a molecular mass of 29.4 kDa (Molecular size on SDS-PAGE will appear at approximately 28-40kDa). GHBP is expressed with an 8 amino acid His tag at C-Terminus and purified by proprietary chromatographic techniques. The growth hormone receptor (GHR) is a transmembrane protein belonging to the cytokine receptor family. Growth hormone (GH) binds through two distinct receptor-binding sites and induces conformational changes in a preformed receptor dimer, activating signaling pathways involved in growth and development. Mutations that impair binding at the second site can generate GH receptor antagonists. The GHR gene has several variants, including the common exon 3-deleted variant, GHRd3, while pathogenic mutations can cause Laron syndrome, a form of growth hormone insensitivity characterized by severe short stature. Alternative splicing can produce truncated receptor isoforms with reduced intracellular domains. These differ from GHBP, the soluble growth hormone-binding protein, which in humans is generated primarily by proteolytic cleavage of the receptor's extracellular domain.

- **Source** Insect cells
- **Purity** ≥ 95 % (SDS-PAGE)
- **Endotoxin Level** ≤ 0.1 ng/µg (≤ 1 EU/µg)
- **Buffer** GHBP protein solution (1 mg/ml) contains phosphate buffered saline (pH7.4) and 10 % glycerol*
- **Physical State** Liquid

Physical State

Sterile filtered colorless solution

Stability

Store at 4°C if entire vial will be used within 2-4 weeks.Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1 % HSA, order number: 2835.955.xyz or 2835.958.xyz, or BSA, order number: 2835.919.xyz). Please avoid repeated freeze-thaw cycles.

Amino Acid Sequence

FSGSEATAAI LSRAPWSLQS VNPGLKTNSS KEPKFTKCRS PERETFSCHW TDEVHHGTK NLGPIQLFYT RRNTQEWTQE WKECPDYVSA GENSCYFNSS FTSIWIPYCI KLTSNGGTVD E KCFSVDEI VQPDPPIALN WTLLNVSLTG IHADIQVRWE APRNADIQKG WMVLEYELQY KEVNETKWKM MDPILTTSVP VY SLKVDKE YEVRVRSKQR NSGNYGEFSE VLYVTLPQMS QFTCEEDFYL EHHHHHH

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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