



Growth Hormone Binding Protein, human recombinant (rHuGHBP)

Catalog No: 87383
Lot No: XXXXX
Source: *E. coli*
Synonyms: GHR, GHBP, GH receptor, Somatotropin receptor

Background

GHBP is a transmembrane receptor for growth hormone. Binding of growth hormone to the receptor leads to receptor dimerization and the activation of an intra- and intercellular signal transduction pathway leading to growth. A common alternate allele of this gene, called GHRd3, lacks exon three and has been well-characterized. Mutations in this gene have been associated with Laron syndrome, also known as the growth hormone insensitivity syndrome (GHIS), a disorder characterized by short stature. Other splice variants, including one encoding a soluble form of the protein (GHRtr), have been observed but have not been thoroughly characterized.

Description

Growth Hormone Binding Protein human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 237 amino acids and having a molecular mass of 28107.01 Dalton. GHBP is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

GHBP was lyophilized from a concentrated (1 mg/ml) solution with 0.0045 mM NaHCO₃.

Solubility

It is recommended to reconstitute the lyophilized GHBP in sterile 18 MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Growth Hormone Binding Protein, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution GHBP should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 98.0% as determined by (a) Analysis by SEC-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Phe-Ser-Gly-Ser.

Activity

GHBP is fully biologically active as evidenced by its ability of forming 2:1 complex with HGH.

CONTACT US TODAY

BIOMOL GmbH • Kieler Straße 303a • 22525 Hamburg • Germany • info@biomol.de • www.biomol.de

Fon: +49 (0)40-853 260 0 • TOLL FREE IN GERMANY: Fon: 0800-246 66 51



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