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Certificate of Analysis and Data Sheet Native Human Chorionic Gonadotropin

Catalog No.
228-10622

Source
Urine of pregnant women

Synonyms

Chorionic gonadotropin beta polypeptide, CGB3, hCGB, Choriogonadotropin subunit beta, CG-beta, Chorionic gonadotrophin chain beta.

Introduction

Human chorionic gonadotropin (hCG) is a peptide hormone produced in pregnancy, that is made by the embryo soon after conception and later by the syncytiotrophoblast (part of the placenta). Its role is to prevent the disintegration of the corpus luteum of the ovary and thereby maintain progesterone production that is critical for a pregnancy in humans. hCG may have additional functions, for instance it is thought that it affects the immune tolerance of the pregnancy. Early pregnancy testing generally is based on the detection or measurement of hCG.

Description

Human Chorionic Gonadotropin is produced from a sterile preparation of placental glucoprotein urine of pregnant women having a total molecular mass of 36,700 Dalton. The hCG consists of 237 amino acids, a chain-92 amino acids and b chain-145 amino acids. The hCG is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

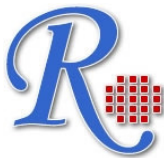
Formulation

The hCG was lyophilized with no additives.

Solubility

It is recommended to reconstitute the lyophilized Human Chorionic Gonadotropin in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Stability

Lyophilized hCG although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CG-beta 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

The purity is 98%.

Biological Activity

The activity was found to be 5000 IU/mg.

Contaminants

Free of: HbsAg, Hepatitis B surface antigen and antibodies to HIV, Hepatitis C and HCV.

Protein content

Protein quantitation was carried out by two independent methods

1. UV spectroscopy at 280 nm using the absorbency value of 1.06 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a standard solution of hCG as a Reference Standard.

References

1. Human Chorionic Gonadotropin Modulates Prostate Cancer Cell Survival after Irradiation or HMG CoA Reductase Inhibitor Treatment, October 18, 2006, doi: 10.1124/mol.106.031153 Molecular Pharmacology January 2007 vol. 71 no. 1 259-275

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