



Product Data Sheet

□ Cat # RP-599

Recombinant Human Chorionic Gonadotropin

Size: □ 10 ug

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

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.

Human Chorionic Gonadotropin Recombinant is produced in Chinese hamster ovary (CHO) cells by recombinant DNA technology is a single, glycoprotein chain consisting of two non-covalently linked subunits - designated a and b consisting of 92 and 145 amino acid residues (237 a.a. total, Mw: 36.7kDa), respectively, with carbohydrate moieties linked to ASN-52 and ASN-78 (on a subunit) and ASN-13, ASN-30, SER-121, SER-127, SER-132 and SER-138 (on b subunit). The primary structure of the a chain of r-hCG is identical to that of the a chain of hCG, FSH and LH.

The glycoform pattern of the alpha subunit of r-hCG is closely comparable to urinary derived hCG (u-hCG), the differences mainly being due to the branching and sialylation extent of the oligosaccharides. The beta chain has both O and N-glycosylation sites and its structure and glycosylation pattern are also very similar to that of urinary hCG.

Source:

Chinese Hamster Ovary Cells (CHO). The hCG is purified by proprietary chromatographic techniques. Purity >99%.

Sterile Filtered White lyophilized (freeze-dried) powder. The hCG was lyophilized from a concentrated (1 mg/ml) solution containing 105 mg sucrose and 3.43 phosphoric acid. It is recommended to reconstitute the lyophilized Human Chorionic Gonadotropin in sterile water not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

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.

Biological Activity:

The biological activity of choriogonadotropin alfa is determined by using the seminal vesicle weight gain test in male rats described in the "Chorionic Gonadotrophins" monograph of the European Pharmacopoeia. The in vivo biological activity of choriogonadotropin alfa has been calibrated against the third international reference preparation IS75/587 for chorionic gonadotropin

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