

Product Data Sheet

Cat # RP-1484

Human Chorionic Gonadotropin (HCG)

**Size:** 2.5 mg

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.

**Source:** *Urine of post-menopausal women* Human Chorionic Gonadotropin is produced from a sterile preparation of placental glucoprotein urine of post-menopausal women having a total molecular mass of 36,700 Dalton. CG-beta consists of 237 amino acids, a chain-92 amino acids and b chain-145 amino acids. The hCG is purified by proprietary chromatographic techniques. The hCG was lyophilized from a concentrated (1 mg/ml) solution with no additives.

**Application and Suggested Dilution:** It is recommended to reconstitute the lyophilized Human Chorionic Gonadotropin in sterile 18MΩ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions. Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. Users must optimize concentration and conditions for each assay. 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

**Storage and 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.** If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage.

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**Biological Activity:** The activity was found to be 5000 IU/mg (IRP reference preparation 75/551).

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

**Usage:** This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

**Related Items**

Catalog#	ProdDescription
0400	Human Chorionic Gonadotropin (HCG) ELISA Kit, 96 tests, Quantitative
0400-S35-100	Pregnancy Test Cassettes, rapid tests for serum or urine (HCG Combo card)
0410	Human Chorionic Gonadotropin (HCG-free beta) ELISA Kit, 96 tests, Quantitative
HCG11-M	Mouse Monoclonal Anti-Human Chorionic Gonadotropin, beta (HCG, beta) IgG
HCG15-N-100	Purified Human Chorionic Gonadotropin beta (HCG, beta) protein
RP-1484	Human Chorionic Gonadotropin (HCG)

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