Human Chorionic Gonadotropin (hCG)

Alternate names:
- CGB, CGB3, Choriogonadotropin subunit beta, beta hCG, hCG-beta

Catalog No.:
- PA1180X

Quantity:
- 5 mg

Concentration:
- 1.0 mg/ml

Background:
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.

Uniprot ID:
- P01233

NCBI:
- NP_000728.1

GeneID:
- 1082

Species:
- Human

Source:
- Urine, (pregnant Women)

Format:
State: White lyophilized (freeze-dried) powder.

Purity: ≥98% pure as determined by:
- (a) Analysis by RP-HPLC.
- (b) Analysis by reducing and non-reducing SDS-PAGE silver stained gel.

Buffer System: The hCG was lyophilized from a concentrated (1 mg/ml) solution with no additives.

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

Description:
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, alpha chain-92 amino acids and beta chain-145 amino acids. The hCG is purified by proprietary chromatographic techniques.

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

Molecular weight: 37 kDa

Add. Information:
Protein Content

Protein quantitation was carried out by two independent methods:
1. UV spectroscopy at 280 nm using the absorbancy value of 1.06 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer

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PA1180X: Human Chorionic Gonadotropin (hCG) analysis program of protein sequences (IntelliGenetics).


Storage:
Lyophilized hCG although stable at room temperature for 3 weeks, should be stored desiccated below -18°C.
Upon reconstitution hCG should be stored at 2-8°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).
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

Caution:
This product has been tested free of: HbsAg, Hepatitis B surface antigen and antibodies to HIV, Hepatitis C. Nevertheless it should be handled as potentially infectious.

General Readings:

Pictures:
Precursor- Protein structure and amino acid sequence

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