

Chorionic Gonadotropin, Human (hCG)

Product Data Sheet

Cat. No.: A225002.5 A225005 A225010

Size: 2.5 mg 5 mg 10 mg

Description:

Our bioactivity tested <u>Human Chorionic Gonadotropin (hCG)</u> is produced from a sterile preparation of placental glucoprotein urine of pregnant women and has 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. Our hCG is purified by proprietary chromatographic techniques.

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.

Application:

Our hCG is commonly used in combination with our Pregnant Mare Serum Gonadotropin (PMSG, eCG) in superovulation protocols for the production of genetically modified laboratory animals, such as genetically engineered mouse models (GEMM) by pronuclear microinjection (transgenic mouse), targeted mutations through CRISPR-Cas9 methods, and embryonic stem (ES) cell-based gene targeting to produce "knockout" mice. hCG also has applications with a variety of other species; for example, it may be used in the generation of *Xenopus laevis* and *Xenopus tropicalis* eggs or embryos for use in experimental model systems.

Source:

Urine of pregnant women

Physical Appearance:

Sterile-filtered white lyophilized (freeze-dried) powder

update.: 032022



Formulation:

The hCG was lyophilized with no additives

Biological Activity:

The activity was found to be 5625 IU/mg (will vary slightly between each lot, please refer to the datasheet enclosed with your shipment).

Solubility:

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

Stability:

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

Contaminants:

Free of: HbsAg and antibodies to HIV and HCV.

Usage:

This product is intended for **Laboratory Research Use Only**. This product may not be used as a pharmaceutical or veterinary drug, agricultural product, or food additive.

update.: 032022