

hCG elisa kit

Human Chorionic Gonadotropin (hCG)

CATALOG #
AAA14617

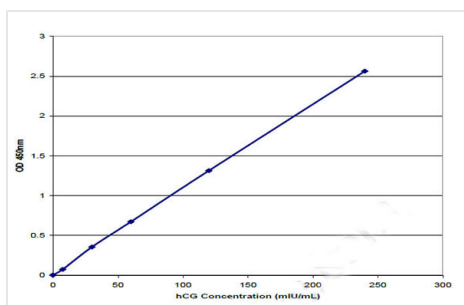
PRODUCT SYNONYMS

hCG; Human Chorionic Gonadotropin (hCG); hCG elisa kit

PRODUCT SPECIFICATIONS

Specificity	This kit exhibits no detectable cross reactivity with FSH, TSH, or Prolactin. This kit has slight cross reactivity with hLH (3%).
Sequence Length	629
Assay Type	Quantitative Sandwich
Samples	Serum
Sensitivity	3.0mIU/mL
Intra-assay Precision	The Intra-assay variations were assessed by testing samples in 16 wells within one assay.
Inter-assay Precision	The Inter-assay variations were assessed by testing samples in 8 different assays with assay kits from three different lots.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for hCG elisa kit	Background: Human chorionic gonadotropin is a glycoprotein hormone produced by normal trophoblast cells of the placenta during pregnancy. It is also produced by trophoblast cells in hydatidiform mole and choriocarcinoma (trophoblast diseases), and in patients with germ cell tumors (testicular choriocarcinoma, placental site tumors and germ cell carcinomas of the ovary) and sometimes in those with other malignancies. Small amount of hCG may also be produced by the pituitary gland. Human CG (hCG) is the hormone associated with the maintenance of pregnancy. Human chorionic gonadotropin is a member of the glycoprotein hormone (GPH) family. Like the other glycoprotein hormones, follicle stimulating hormone (FSH), luteinizing hormone (LH) and thyroid stimulating hormone (TSH), hCG is composed of two subunits, alpha and beta. Alpha subunits of these various glycoprotein hormones are structurally very similar, but beta subunits differ in amino acid sequences. These differences are responsible for their biological and immunological specificity. The alpha-subunit of hCG is a glycopeptide of 92 amino acids and the beta-subunit of hCG is a glycopeptide of 145 amino acids. HCG has a molecular weight of 50,000 daltons, consists of an alpha subunit of 18,000 daltons and a beta subunit of 32,000 daltons. Recent elucidation of the crystal structure of hCG has revealed that all these subunits share the so-called cystin-knot structural motif with growth factors such as nerve (NGF), platelet-derived (PDGF). Although the pituitary secretes three related glycoprotein hormones, LH, FSH, and TSH, hCG is the only one to be produced by the placenta in primates to maintain the steroid hormone secretions of the corpus luteum. Predominantly intact hCG is present in serum and urine samples in normal pregnancy, as well as in hydatidiform mole. In women with extrauterine or ectopic pregnancies, unduly low hCG levels may be detected. Variable levels of hCG mostly intact hCG, may be present from individuals with persistent trophoblastic disease. Elevated concentrations are also present in cases of early pregnancy loss (EPL) or biochemical pregnancy, gestational Down syndrome. Bladder cancer, ovarian cancer and certain other malignancies may generate a small amount of hCG alpha and beta subunit. Commonly, the amount of subunit is insufficient for combination to occur to make intact hCG. Principle of the Assay: This hCG enzyme linked immunosorbent assay (ELISA) applies a technique called a quantitative sandwich immunoassay. The microtiter plate provided in this kit has been pre-coated with a monoclonal antibody specific to hCG. Standards or samples are added to the microtiter plate wells and incubated. The plate wells are washed to remove any unbound standard or sample, hCG, if present, will bind to the antibody pre-coated on the wells. A standardized preparation of horseradish peroxidase (HRP)-conjugated monoclonal antibody specific to hCG is added to each well to "sandwich" the hCG immobilized on the plate. The microtiter plate undergoes incubation, and then the wells are thoroughly washed to remove all unbound components. Next, a TMB (3,3', 5,5' Tetramethyl-benzidine) substrate solution is added to each well. This enzyme (HRP) and substrate are allowed to react over a short incubation period. Only those wells that contain hCG and enzyme-conjugated antibody will exhibit a change in colour. The enzyme-substrate reaction is terminated by the addition of a sulphuric acid solution and the colour change is measured spectrophotometrically at a wavelength of 450 nm. In order to measure the concentration of hCG in the sample, this ELISA Kit includes a set of calibration standards (6 standards). The calibration standards are assayed at the same time as the samples and allow the operator to produce a standard curve of Optical Density (O.D.) versus hCG concentration (mIU/mL). The concentration of hCG in the samples is then determined by comparing the O.D. of the samples to the standard curve. Intended Uses: This HCG ELISA Kit is to be used for the in vitro quantitative determination of intact human chorionic gonadotropin (hCG) concentrations in serum. This kit is intended FOR LABORATORY RESEARCH USE ONLY and is not to be used for diagnostic or therapeutic procedures.
Product Categories/Family for hCG elisa kit	ELISA Kits for Human Hormones

NCBI AND UNIPROT INFORMATION

NCBI GI #	20138396
Molecular Weight	71,811 Da
NCBI Official Full Name	Hemocyanin G chain
UniProt Protein Name	Hemocyanin G chain
UniProt Gene Name	HCG
UniProt Entry Name	HCYG_APHCL

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/elisa-kits/hcg/14617>