### Overview

**Product name**
Anti-hCG antibody [HCG1]

**Description**
Mouse monoclonal [HCG1] to hCG

**Host species**
Mouse

**Specificity**
hCG specifically recognises human chorionic gonadotropin. Its affinity for the free beta-chain is slightly greater than its affinity for the whole molecule. hCG - 100% hCG (beta) - 125% hCG (alpha) - <1% hLH - <1% hTSH - <0.05% hFSH - <<0.1% Affinity constant: 5x10^9 l/mol HCG.

**Tested applications**
Suitable for: ELISA, RIA, RID

**Species reactivity**
Reacts with: Human

**General notes**
- **Association Constant**: hCG: 4.0 x 10^6 and hCGbeta: 1.6 x 10^6
- **Dissociation Constant**: hCG: 1.4 x 10^-4 and hCGbeta: 3.6 x 10^-4
- **Affinity Constant hCG**: KA = 2.9 x 10^10 1/M; KD = 3.4 x 10^-11 M (= 0.03 nM)
- **Affinity Constant hCGbeta**: KA = 4.4 x 10^8 1/M; KD = 2.3 x 10^-10 M (= 0.23 nM)
- **Determination method**: SPR analysis
- **Antigen**: hCG; hCG-beta

### Properties

**Form**
Liquid

**Storage instructions**
Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.

**Storage buffer**
Preservative: 0.1% Sodium azide
Constituent: 0.9% Sodium chloride

**Purity**
Protein A purified

**Clonality**
Monoclonal

**Clone number**
HCG1

**Myeloma**
unknown

**Isotype**
IgG1

**Light chain type**
unknown

### Applications
Human chorionic gonadotropin (hCG) is a glycoprotein hormone produced by trophoblastic cells of the placenta beginning 10 to 12 days after conception. Maintenance of the fetus in the first trimester of pregnancy requires the production of hCG, which binds to the corpus luteum of the ovary which is stimulated to produce progesterone which in turn maintains the secretory endometrium. hCG is present only in trace amounts in non pregnant urine and sera. It rises sharply during pregnancy. HCG is composed of two non identical, non covalently linked polypeptide chains designated as the a and b subunits. The a subunit of HCG is nearly identical to that of thyroid stimulating hormone (TSH), follicle stimulating hormone (FSH) and luteinizing hormone (LH). A germ cell tumor which is positive for cytokeratin, placental alkaline phosphatase (PLAP) and HCG but negative for EMA and AFP is probably a choriocarcinoma.

Our Abpromise guarantee covers the use of ab400 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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**Target**

**Relevance**

Human chorionic gonadotropin (hCG) is a glycoprotein hormone produced by trophoblastic cells of the placenta beginning 10 to 12 days after conception. Maintenance of the fetus in the first trimester of pregnancy requires the production of hCG, which binds to the corpus luteum of the ovary which is stimulated to produce progesterone which in turn maintains the secretory endometrium. hCG is present only in trace amounts in non pregnant urine and sera. It rises sharply during pregnancy. HCG is composed of two non identical, non covalently linked polypeptide chains designated as the a and b subunits. The a subunit of HCG is nearly identical to that of thyroid stimulating hormone (TSH), follicle stimulating hormone (FSH) and luteinizing hormone (LH). A germ cell tumor which is positive for cytokeratin, placental alkaline phosphatase (PLAP) and HCG but negative for EMA and AFP is probably a choriocarcinoma.

**Cellular localization**

Secreted

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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