

Anti-hCG antibody [HCG1] ab400

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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: 5×10^9 l/mol HCG.
Tested applications	Suitable for: ELISA, RID, RIA
Species reactivity	Reacts with: Human
Immunogen	Full length native protein (purified) corresponding to Human hCG.
General notes	Association Constant: hCG: 4.0×10^6 and hCGbeta: 1.6×10^6 Dissociation Constant: hCG: 1.4×10^{-4} and hCGbeta: 3.6×10^{-4} Affinity Constant hCG: $K_A = 2.9 \times 10^{10}$ 1/M; $K_D = 3.4 \times 10^{-11}$ M (= 0.03 nM) Affinity Constant hCGbeta: $K_A = 4.4 \times 10^9$ 1/M; $K_D = 2.3 \times 10^{-10}$ M (= 0.23 nM) Determination method: SPR analysis Antigen: hCG; hCG-beta The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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

The Abpromise guarantee 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.

Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration.
RID		Use at an assay dependent concentration.
RIA		Use at an assay dependent concentration.

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

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