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## Anti-Human Chorionic Gonadotropin Alexa Fluor® 488

**Catalog Number:** 53-6508

**RUO: For Research Use Only. Not for use in diagnostic procedures.**

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### Product Information

**Contents:** Anti-Human Chorionic Gonadotropin Alexa Fluor® 488  
**Catalog Number:** 53-6508  
**Clone:** FB12  
**Concentration:** 0.5 mg/mL  
**Host/Isotype:** Mouse IgG1, kappa



**Formulation:** aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer  
**Temperature Limitation:** Store at 2-8°C. Do not freeze. Light-sensitive material.  
**Batch Code:** Refer to vial  
**Use By:** Refer to vial

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### Description

This FB12 monoclonal antibody reacts with human Chorionic Gonadotropin (hCG). This secreted glycoprotein is composed of an alpha subunit, which is common to other peptide hormones such as luteinizing hormone (LH), follicle stimulating hormone (FSH) and thyroid stimulating hormone (TSH), and a beta subunit which determines the specificity of the hormone. FB12 recognizes both the intact hCG (composed of the alpha and beta subunits) as well as the free beta subunit, highly expressed in both choriocarcinoma and the serum of pregnant women. hCG is normally expressed by trophoblastoid cells (syncytiotrophoblasts and extravillous cytotrophoblasts) that are responsible for maintenance of the corpus luteum during early gestation. hCG plays an important role in the regulation of angiogenesis through activation of the PI3K/mTOR pathway, resulting in upregulation of vascular endothelial growth factor (VEGF). Ectopic expression of hCG has also been reported in multiple types of cancer (bladder, lung, breast, pancreas, renal).

### Applications Reported

This FB12 antibody has been reported for use in immunohistochemical staining of frozen tissue sections (IHC-F) and immunocytochemistry (ICC).

### Applications Tested

This FB12 antibody has been tested by immunocytochemistry on fixed BeWo cells. This can be used at less than or equal to 20 ug/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

### References

Bidart JM, Troalen F, Bohuon CJ, Hennen G, Bellet DH. Immunochemical mapping of a specific domain on human choriongonadotropin using anti-protein and anti-peptide monoclonal antibodies. J Biol Chem. 1987 Nov 15;262(32):15483-9. (**FB12**, WB)

Hamada AL, Nakabayashi K, Sato A, Kiyoshi K, Takamatsu Y, Laoag-Fernandez JB, Ohara N, Maruo T. Transfection of antisense chorionic gonadotropin beta gene into choriocarcinoma cells suppresses the cell proliferation and induces apoptosis. J Clin Endocrinol Metab. 2005 Aug;90(8):4873-9.

He YP, Xu WX, Hong AZ, Liao MC, Ji CN, Gu SH, Chen JZ, Xie Y. Immunogenic comparison for two different recombinant chimeric peptides (CP12 and CP22) containing one or two copies of three linear B cell epitopes from  $\beta$ -hCG subunit. J Biotechnol. 2011 Jan 10;151(1):15-21.

Iles RK, Delves PJ, Butler SA. Does hCG or hCG $\beta$  play a role in cancer cell biology? Molecular and Cellular Endocrinology. 2010 Nov 25;329(1-2):62-70.

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### Related Products

00-4953 IHC /ICC Blocking Buffer - Low Protein

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00-4954 20X TBS Wash Buffer for IHC/ICC

00-4958 Fluoromount-G™

53-4714 Mouse IgG1 K Isotype Control Alexa Fluor® 488 (P3.6.2.8.1)

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