
Anti-Human Chorionic Gonadotropin Beta Subunit Purified

Catalog Number: 14-9872

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

Product Information

Contents: Anti-Human Chorionic Gonadotropin Beta Subunit Purified
Catalog Number: 14-9872
Clone: FBT11
Concentration: 0.5 mg/mL
Host/Isotype: Mouse IgG1



Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C.

Batch Code: Refer to vial

Use By: Refer to vial

Description

This FBT11 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. FBT11 recognizes only the free beta subunit of hCG, not the heterodimeric protein. The protein hCG is expressed in the serum of pregnant women, via 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). The expression of the beta subunit alone was originally thought to be biologically inactive. Recent data suggests that the beta subunit may promote tumor growth and inhibit apoptosis. This correlates with the observation of elevated levels of beta hCG in aggressive forms of cancer, such as testicular, bone, and lung.

Applications Reported

This FBT11 antibody has been reported for use in western blotting, immunohistochemical staining of frozen (IHC-F) and formalin-fixed paraffin embedded (IHC-P) tissues, ELISA, immunocytochemistry, and neutralization.

Applications Tested

This FBT11 antibody has been tested by western blot on reduced BeWo cell lysate and can be used at less than or equal to 5 ug/mL. This FBT11 antibody has also been tested by immunocytochemistry on methanol-fixed BeWo cells and 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

Cole LA, Kardana A, Seifer DB, Bohler HC Jr. Urine hCG beta-subunit core fragment, a sensitive test for ectopic pregnancy. J Clin Endocrinol Metab. 1994 Feb;78(2):497-9. (FBT11, ELISA)

Marcillac I, Troalen F, Bidart JM, Ghillani P, Ribrag V, Escudier B, Malassagne B, Droz JP, Lhomme C, Rougier P, Duvillard P, Prade M, Lugagne PM, Richard F, Poynard T, Bohuon C, Wands J, Bellet D. Free Human Chorionic Gonadotropin b Subunit in Gonadal and Nongonadal Neoplasms. Cancer Res July 15, 1992 52; 3901.

Bidart JM, Troalen F, Lazar V, Berger P, Marcillac I, Lhomme C, Droz JP, Bellet D.. Monoclonal antibodies to the free beta-subunit of human chorionic gonadotropin define three distinct antigenic domains and distinguish between intact and nicked molecules. Endocrinology. 1992 Oct;131(4):1832-40. (FBT11, ELISA)

Related Products

00-4953 IHC /ICC Blocking Buffer - Low Protein
00-4954 20X TBS Wash Buffer for IHC/ICC
00-4958 Fluoromount-G™
14-4714 Mouse IgG1 K Isotype Control Purified (P3.6.2.8.1)

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