hCG beta Antibody / Human chorionic gonadotropin beta [clone 31C69] (FY12246)

Catalog No.	Formulation	Size
FY12246	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	31C69
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P0DN86, P0DN87, Q6NT52
Applications	Immunohistochemistry : 1:50-1:200
Limitations	This hCG beta antibody is available for research use only.

Description

hCG beta antibody detects the beta subunit of human chorionic gonadotropin (hCG), a glycoprotein hormone produced primarily by placental trophoblast cells during pregnancy. hCG consists of alpha and beta subunits, with the beta subunit providing biological specificity distinct from other glycoprotein hormones such as LH, FSH, and TSH. hCG binds to the LH/CG receptor to promote corpus luteum maintenance and progesterone production, supporting early pregnancy and implantation.

Research using hCG beta antibody spans reproductive biology, oncology, and endocrinology. In pregnancy, hCG beta serves as a key biomarker for implantation success, gestational health, and detection of ectopic pregnancy. Clinical tests measuring hCG beta levels form the basis of most pregnancy assays. Aberrant expression of hCG beta subunit also occurs in trophoblastic disease and germ cell tumors, where elevated levels are diagnostic markers.

In oncology, hCG beta is expressed in a range of non-trophoblastic tumors including bladder, breast, lung, and gastrointestinal cancers. Its expression correlates with poor prognosis and aggressive tumor behavior. The beta subunit has been implicated in tumor progression, invasion, and immune modulation, making it both a biomarker and a potential therapeutic target.

hCG beta also plays a role in immunology, where it can modulate maternal immune tolerance during pregnancy. By influencing T-cell function and cytokine production, hCG beta contributes to maintaining maternal-fetal tolerance and preventing rejection of the semi-allogeneic fetus.

Antibodies against hCG beta are validated for ELISA, immunohistochemistry, immunofluorescence, and western blot. These reagents support research into reproductive health, cancer diagnostics, and endocrine regulation. Clone-based antibodies provide high specificity for the beta subunit, avoiding cross-reactivity with the common alpha subunit shared by other glycoprotein hormones.

NSJ Bioreagents supplies this hCG beta antibody for applications in reproductive biology, oncology, and clinical research.

Application Notes

Optimal dilution of the hCG beta antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human hCG beta was used as the immunogen for the hCG beta antibody.

Storage

Store the hCG beta antibody at -20oC.