

## 12-8308: Anti-Human HCG (Clone L521)-Purified No Carrier Protein

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	L521
<b>Reactivity :</b>	Human
<b>Immunogen Information :</b>	Purified HCG Beta

### Description

Specificity: Mouse Anti-Human Chorionic Gonadotropin (HCG) Beta (Clone L521) recognizes Human Chorionic Gonadotropin (HCG) Beta.

Background: Human chorionic gonadotropin (hCG) is a hormone produced by cells surrounding a growing embryo, which eventually forms the placenta after implantation<sup>1</sup>. Its primary function is the maternal recognition of pregnancy, allowing the corpus luteum to secrete progesterone during the first trimester to enrich the uterine lining and sustain the fetus<sup>1</sup>. hCG is naturally produced by the syncytiotrophoblast cells of the placenta<sup>1</sup>. It is a glycoprotein dimer consisting of an  $\alpha$  subunit identical to other hormones like LH, FSH, and TSH, and a unique  $\beta$  subunit<sup>4</sup>. The genes for the  $\alpha$  and  $\beta$  subunits are located on different chromosomes<sup>5</sup>. The presence of hCG is detected in pregnancy tests due to its elevated levels in pregnant women's urine and blood<sup>1,3</sup>. It can also be used to induce ovulation and testosterone production for fertility treatments<sup>1</sup>. Historically, hCG was first isolated from the urine of pregnant women in 1928 by Aschheim and Zondek, leading to the development of early pregnancy tests<sup>2</sup>. Elevated hCG levels when not pregnant may indicate certain cancers like choriocarcinoma, as some tumors can produce this hormone<sup>1</sup>. However, its role in carcinogenesis is unclear.

### Product Info

<b>Amount :</b>	500 $\mu$ g / 100 $\mu$ g Purity: $\geq$ 90% monomer by analytical SEC and SDS-Page
<b>Purification :</b>	Preparation: Antibodies are manufactured in an animal free facility using in vitro cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates. Concentration: $\geq$ 1.0 mg/ml
<b>Content :</b>	Formulation: This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.
<b>Storage condition :</b>	Antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at -70°C. Avoid Repeated Freeze Thaw Cycles.