

# Human Chorionic Gonadotropin (Beta)

Concentrated and Prediluted Polyclonal Antibody  
901-124-061719

**BIOCARE**  
M E D I C A L

<b>Catalog Number:</b>	<b>CP 124 A</b>	<b>PP 124 AA</b>	<b>VLTR 124 G20</b>
<b>Description:</b>	0.1 mL, conc.	6.0 mL, RTU	20 mL, RTU
<b>Dilution:</b>	1:200-1:400	Ready-to-use	Ready-to-use
<b>Diluent:</b>	Da Vinci Green	N/A	N/A

## Intended Use:

For In Vitro Diagnostic Use

Human Chorionic Gonadotropin (Beta) is a rabbit polyclonal antibody that is intended for laboratory use in the qualitative identification of human chorionic gonadotropin protein by immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence should be complemented by morphological studies using proper controls and should be evaluated within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist.

## Summary and Explanation:

Studies have shown the Human Chorionic Gonadotropin (hCG) antibody reacts with a protein that is secreted by normal trophoblasts in normal placenta and in neoplastic trophoblasts of choriocarcinomas and teratomas. It has also been shown to react with lung cancer, urinary bladder, ovarian mixed germ-cell tumors, adenocarcinoma of the prostate, seminomas and pituitary adenomas (2-5).

## Principle of Procedure:

Antigen detection in tissues and cells is a multi-step immunohistochemical process. The initial step binds the primary antibody to its specific epitope. After labeling the antigen with a primary antibody, a one-step or two-step detection procedure can be applied. A one-step procedure will feature an enzyme labeled polymer that binds the primary antibody. A two-step procedure will feature a linker antibody added to bind to the primary antibody. An enzyme-labeled polymer is then added to bind the linker antibody. These detections of the bound antibodies are evidenced by a colorimetric reaction.

**Source:** Rabbit polyclonal

**Species Reactivity:** Human; others not tested

**Clone:** N/A

**Isotype:** N/A

**Protein Concentration:** Lot specific Ig concentration is not available.

**Epitope/Antigen:** hGC protein

**Cellular Localization:** Cytoplasmic

**Positive Tissue Control:** Placenta

## Known Applications:

Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

**Supplied As:** Buffer with protein carrier and preservative

## Storage and Stability:

Store at 2°C to 8°C. The product is stable to the expiration date printed on the label, when stored under these conditions. Do not use after expiration date. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C.

## Protocol Recommendations (VALENT® Automated Slide Staining Platform):

VLTR124 is intended for use with the VALENT. Refer to the User Manual for specific instructions for use. Protocol parameters in the Protocol Manager should be programmed as follows:

**Deparaffinization:** Deparaffinize for 8 minutes with Val DePar.

**Pretreatment:** Perform heat retrieval at 98°C for 60 minutes using Val AR-Hi pH, 5X (use at 1X).

**Peroxidase Block:** Block for 5 minutes with Val Peroxidase Block.

**Protein Block:** Incubate for 10 minutes with Val Background Block.

**Primary Antibody:** Incubate for 30 minutes.

## Protocol Recommendations (VALENT Automated Slide Staining Platform) Cont'd:

**Secondary:** N/A

**Linker:** Incubate for 10 minutes with Val Universal Linker.

**Polymer:** Incubate for 20 minutes with Val Universal Polymer.

**Chromogen:** Incubate for 5 minutes with Val DAB.

**Counterstain:** Counterstain for 5 minutes with Val Hematoxylin.

## Protocol Recommendations (intelliPATH FLX® and manual use):

**Peroxide Block:** Block for 5 minutes with Peroxidized 1.

**Pretreatment:** Perform heat retrieval using Reveal Decloaker. Refer to the Reveal Decloaker product data sheet for specific instructions.

**Protein Block (Optional):** Incubate for 5-10 minutes at RT with Background Punisher.

**Primary Antibody:** Incubate for 30 minutes at RT.

**Probe:** N/A

**Polymer:** Incubate for 30 minutes at RT with a secondary-conjugated polymer.

**Chromogen:** Incubate for 5 minutes at RT with Biocare's DAB - OR - Incubate for 5-7 minutes at RT with Warp Red.

## Counterstain:

Counterstain with hematoxylin. Rinse with deionized water. Apply Tacha's Bluing Solution for 1 minute. Rinse with deionized water.

## Technical Note:

This antibody, for intelliPATH FLX and manual use, has been standardized with MACH 2 detection system. Use TBS for washing steps.

## Limitations:

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to: fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Biocare products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.

## Quality Control:

Refer to CLSI Quality Standards for Design and Implementation of Immunohistochemistry Assays; Approved Guideline-Second edition (I/LA28-A2). CLSI Wayne, PA, USA (www.clsi.org). 2011

## Precautions:

1. This antibody contains less than 0.1% sodium azide. Concentrations less than 0.1% are not reportable hazardous materials according to U.S. 29 CFR 1910.1200, OSHA Hazard communication and EC Directive 91/155/EC. Sodium azide (NaN<sub>3</sub>) used as a preservative is toxic if ingested. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. (Center for Disease Control, 1976, National Institute of Occupational Safety and Health, 1976) (6)

2. Specimens, before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents

# Human Chorionic Gonadotropin (Beta)

Concentrated and Prediluted Polyclonal Antibody  
901-124-061719

**BIOCARE**  
M E D I C A L

## Precautions Cont'd:

and specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water. (7)

3. Microbial contamination of reagents may result in an increase in nonspecific staining.

4. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change.

5. Do not use reagents after the expiration date printed on the vial.

6. The SDS is available upon request and is located at <http://biocare.net>.

## Troubleshooting:

Follow the antibody specific protocol recommendations according to data sheet provided. If atypical results occur, contact Biocare's Technical Support at 1-800-542-2002.

## References:

1. Weissbach L, Bussar-Maatz R, Mann K. The value of tumor markers in testicular seminomas. Results of a prospective multicenter study. *Eur Urol.* 1997;32(1):16-22.

2. Sheaff MT, *et al.* beta hCG as a prognostic marker in adenocarcinoma of the prostate. *J Clin Pathol.* 1996 Apr;49(4):329-32.

3. Matias-Guiu X, Prat J. Ovarian tumors with functioning stroma. An immunohistochemical study of 100 cases with human chorionic gonadotropin monoclonal and polyclonal antibodies. *Cancer.* 1990 May 1;65(9):2001-5.

4. Niehans GA, *et al.* Immunohistochemistry of germ cell and trophoblastic neoplasms. *Cancer* 1988 Sep 15;62 (6):1113-23.

5. Heshmati HM, *et al.* The immunocytochemical heterogeneity of silent pituitary adenomas. *Acta Endocrinol (Copenh).* 1988 Aug;118(4):533-7.

6. Center for Disease Control Manual. Guide: Safety Management, NO. CDC-22, Atlanta, GA. April 30, 1976 "Decontamination of Laboratory Sink Drains to Remove Azide Salts."

7. Clinical and Laboratory Standards Institute (CLSI). Protection of Laboratory Workers from Occupationally Acquired Infections; Approved Guideline-Fourth Edition CLSI document M29-A4 Wayne, PA 2014.