

# ImmunoPure™ HD



A division of Gene Therapy Systems, Inc.

## Normal Human CD19+ B Cells

Catalog #	Description/Content	Amount
PBMC006A	Normal Human CD19+ B Cells (negatively selected), Cryopreserved	10.0 x 10 <sup>6</sup> cells

Shipping and Storage:	
	Cells are shipped on dry ice. <b>For maximum viability, it is best to use cells as soon as possible.</b> For short term (3 weeks or less) store cells at -80°C; for longer term, store cells in liquid nitrogen (-170°C). <b>NOTE:</b> viability cannot be guaranteed following -170°C storage or beyond one week at -80°C.

Related Products	Catalog Numbers
Normal Human Peripheral Blood Mononuclear Cells	PBMC000 (5.0x10 <sup>6</sup> ); PBMC001 (25.0x10 <sup>6</sup> ); PBMC002 (75.0x10 <sup>6</sup> ).
Normal Human CD4+ Helper T Cells	PBMC003A (10.0x10 <sup>6</sup> ).
Normal Human CD8+ Cytotoxic T cells	PBMC004A (10.0x10 <sup>6</sup> ).
Normal Human CD14+ Monocyte Cells	PBMC005A (10.0x10 <sup>6</sup> ).
Normal Human CD56+ Natural Killer Cells	PBMC007A (10.0x10 <sup>6</sup> ).
Normal Human Dendritic Cells	PBMC008A (0.5x10 <sup>6</sup> ).

## INTRODUCTION

Normal Human CD19+ B cells are lymphocytes that play a large role in the humoral immune response. The principal functions of B cells are to make antibodies against antigens, perform the role of antigen-presenting cells (APCs) and eventually develop into memory B cells after activation by antigen interaction. B cells are an essential component of the adaptive immune system.

The ImmunoPure HD Human CD19+ B cells are isolated from fresh human adult peripheral blood of healthy donors at IRB-approved and FDA-licensed blood banks, using apheresis and immunomagnetic separation techniques.

## MATERIALS AND METHODS

### A. General Medium Requirement

RPMI1640 + 10% fetal calf serum (heat inactivated), 1.5mM L-glutamine, 100 IU/ml penicillin, and 100 mg/ml streptomycin.

### B. Thawing and Culturing Cells

1. Prepare a 37°C water bath to temperature.
2. Keep all samples frozen until the bath is ready.
3. Place the vials into the water bath, being careful not to submerge below the junction between the lid and the vial. Agitate until thawed. It is important to thaw the cells quickly; do **NOT** allow thawed cells to remain in freezing media any longer than necessary.
4. When only a small amount of ice remains, remove the vials and dry with a lab tissue. Clean the top of the vial with a lab tissue moistened with 70% alcohol; **avoid wiping away the labeling.**
5. Within about 30 sec., slowly add one milliliter of medium (containing serum) to the thawed cells.
6. Slowly add thawed cells to 8 mL of medium containing serum. Invert tube 2 or 3 times to mix or mix gently by pipetting up and down several times.
7. Centrifuge for 5 min at 400 x g.
8. Aspirate or decant the supernatant and gently resuspend the cell pellet in 10 ml of medium.
9. Remove an aliquot for cell count and proceed with experimental manipulations.
10. Culture cells in RPMI1640 media supplemented with 10% fetal calf serum (heat inactivated), 1.5 mM L-glutamine, 100 IU/ml penicillin, 100 mg/ml streptomycin at a density of 1-2M cells/ml.  
**NOTE:** The cell suspension may form clumps after standing at room temperature. This can be avoided by preparing and using the cells promptly or by adding DNase to the suspension at a final concentration of 10 units per ml.

## Normal Human CD19+ B Cells, Manual

### A. References

1. Plasmacytoid dendritic cells, antigen, and CpG-C license human B cells for plasma cell differentiation and immunoglobulin production in the absence of T-cell help. Hendrik Poeck, Moritz Wagner, Julia Battiany, Simon Rothenfusser, Daniela Wellisch, Veit Hornung, Bernd Jahrsdorfer, Thomas Giese, Stefan Endres, and Gunther Hartmann. *Blood*, 15 April 2004, Volume 103, Number 8.

The purchase price paid for the ImmunoPure™ HD cells and reagents grants end users a non-transferable, non-exclusive license to use the kit and/or its components for **internal *in vitro* research use only** as described in this manual; in particular, “research use only” excludes and without limitation, resale, repackaging, or use for the making or selling of any commercial product or service without the written approval of Genlantis. Separate licenses are available for non-research use or applications. **The PrimaPure™ HD cells and reagents are not to be used in human diagnostic or therapeutic applications, including primary or secondary use to produce or derive, directly or indirectly, any components used as drugs for human or animal use.** Although routinely tested for HIV-1, HBV, HCV, Syphilis, and other infectious diseases, these cells must be handled as potentially infectious. There is no test that can completely guarantee the absence of infectious agents; care and attention should be exercised in handling the ImmunoPure cells by following standardized research lab practices, wearing protective lab clothing, and using appropriate equipment.

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