

Human Peripheral Blood Mononuclear Cells (PBMCs)

Catalog Number: PBMC01

Product Description

Name: Normal Peripheral Blood Mononuclear cells, Cryopreserved

Species: Human

Amount: 15-18 millions/vial

Concentration: ~10⁶ cells/mL

Product specifications

Human Peripheral Blood Mononuclear Cells (PBMCs) were isolated by a density gradient centrifugation from fresh human adult peripheral blood (purchased from HemaCare Corporation <http://www.hemacare.com/>) of healthy donors and frozen the same day using optimized and validated procedures. PBMCs were cryopreserved in serum from the same donor with 5% DMSO.

Specifications for each lot contain donor information (age, gender, ethnicity, APO/Rh, proof on negative results for infectious diseases (blood born pathogens) and initial blood count data.

Shipping

Product is shipped on dry ice. For maximum viability, use cells as soon as possible. If necessary, store at liquid nitrogen vapor phase.

Product application and Storage

Applications:

Immune monitoring - ICS, ELISpot, ELISA (multiplex), Tetramer assay; Immunophenotyping; Phospho-protein analysis; Cell differentiation assays; Cell proliferation/apoptosis assays; Drug screening - cell based assay (HTS); Cell Chemotaxis and Cell Mobility assays; Use to standardize and validate assays.

Preparation for usage.

Materials needed:

RPMI 1640 medium + 10% (v/v) FBS (heat inactivated), 2 mM glutamine, 1% (v/v) nonessential amino acids, 1% (v/v) sodium pyruvate, 50 U/ml penicillin, 50 mg/ml streptomycin.

Thawing:

1. Prepare a 37 °C water bath.
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 lid.
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.
6. Within about 30 sec., slowly add 1 mL of complete medium (containing serum) to the thawed cells.
7. 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 once.
8. Centrifuge for 5 min at 400 x g.
9. Aspirate or decant the supernatant and gently resuspend the cell pellet in 10 mL of medium.
10. Remove an aliquot for cell count and proceed with experimental manipulations.
11. Culture the cells in RPMI 1640 medium supplemented with 10% (v/v) heat inactivated FBS, GlutaMAX (Gibco, Cat # 35050-061), MEM NEAA (Gibco, Cat # 11140-050), 1 mM Sodium Pyruvate (Gibco, Cat # 11360-070), 50 U/ml penicillin, 50 mg/ml streptomycin.

NOTE:

The cell suspension may form clumps after standing at room temperature. Keep them on ice if you need some time to prepare your experiment. Better be ready for the experiment before cells thawing.

Storage:

3 weeks or less: -80°C

Long term: Liquid Nitrogen

Stability:

Cannot be guaranteed, if stored improperly.

Application Note: For research purposes only. Not for use in humans.