

Human Peripheral Blood Mononuclear Cells (PBMC), Frozen

Catalog	Unit Size
TBS8035-2M	2 Million
TBS8035-20M	20 Million
TBS8035-50M	50 Million
TBS8035-100M	100 Million

DESCRIPTION

Primary Peripheral Blood Mononuclear Cells (PBMCs) are a diverse population of blood cells with a single round nucleus, including macrophages, dendritic cells, monocytes, and lymphocytes (T cells, B cells, and NK cells). These cells play a crucial role in the body's immune response, fighting infections and participating in immune surveillance. PBMCs are isolated from human peripheral whole blood using density gradient centrifugation and red blood cell lysis, ensuring a high-quality cell preparation.

COMPONENTS

PBMCs: A mixture of immune cells, including T cells, B cells, NK cells, monocytes, macrophages, and dendritic cells.

Cryoprotectant Medium: Typically includes Fetal Bovine Serum (FBS) and Dimethyl Sulfoxide (DMSO) to protect cells during freezing and thawing.

Culture Medium: RPMI-1640 medium with FBS and optional Penicillin-Streptomycin for cell growth and maintenance after thawing.

APPLICATION

They are an essential tool for studying immune function, disease mechanisms, and therapeutic interventions in various fields, including immunology, infection, cancer, and hematology.

PACK SIZE

2 Million, 20 Million, 50 Million and 100 Million

STORAGE

Long-Term: Store in liquid nitrogen (-196°C).
Short-Term: Store at -80°C.

PROCEDURES

- Thawing:** Thaw quickly in a 37°C water bath for 1-2 minutes, then transfer to a sterile cabinet.
- Washing:** Centrifuge at 300-400 x g, resuspend in fresh medium.
- Cell Counting & Viability:** Count and check viability using a hemocytometer or automated counter.
- Culturing:** Seed cells in culture vessels incubate at 37°C, 5% CO₂.
- Cryopreservation:** Resuspend in cryopreservation medium and store at -80°C or in liquid nitrogen.
- Medium Change:** Refresh medium every 2-3 days.

Maintain sterile conditions throughout.

RELATED PRODUCTS

[Mitochondrial Isolation from Tissue and Cell \(TBS2016\)](#)

[RPMI-1640 Medium \(TBS8063\)](#)

[2x Cell Freezing Medium \(TBS8018\)](#)

[Fetal Bovine Serum \(FBS\)](#)

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