

Multiple Myeloma BMMCs Characterized by Flow Cytometry

Basic Product Information

Product Name:	MM BMMCs and BMMCs+PBMCs Characterized by Flow Cytometry		
Disease	Item Number	Matched Samples	BMMCs Attributes
Multiple Myeloma (MM)	100131.1	N/A	<10% plasma cells, <5M cells
	100151.2	N/A	<10% plasma cells, ≥5M cells
	100111.1	N/A	≥10% plasma cells, <5M cells
	100111.2	N/A	≥10% plasma cells, ≥5M cells
	100172.1	PBMCs	<10% plasma cells, <5M cells
	100172	PBMCs	<10% plasma cells, ≥5M cells
	100171.1	PBMCs	≥10% plasma cells, <5M cells
	100171	PBMCs	≥10% plasma cells, ≥5M cells

Description:

Diseased bone marrow mononuclear cells (BMMCs) are composed of both normal and malignant cells. BMMCs are isolated from bone marrow aspirates using density gradient centrifugation techniques. The immunophenotype of malignant cells are readily identified by flow cytometry (Figure 1) and are ready for downstream applications.

Storage and Handling:

Liquid nitrogen vapor phase

Product Applications:

Malignant cell isolation, cell culture, flow cytometry, cytotoxicity assays and drug studies, and single cell and whole genomic applications.

Cell Counting Process:

Following cryopreservation, cell counts are confirmed by thawing a single vial from each lot and counting using acridine orange and propidium iodide on a Nexcelom Cellometer.

Freezing Strategy:

Cells are cryopreserved in FBS + 10% DMSO and undergo slow freezing overnight at -80C. Samples are subsequently transferred to liquid nitrogen vapor phase for long term storage.

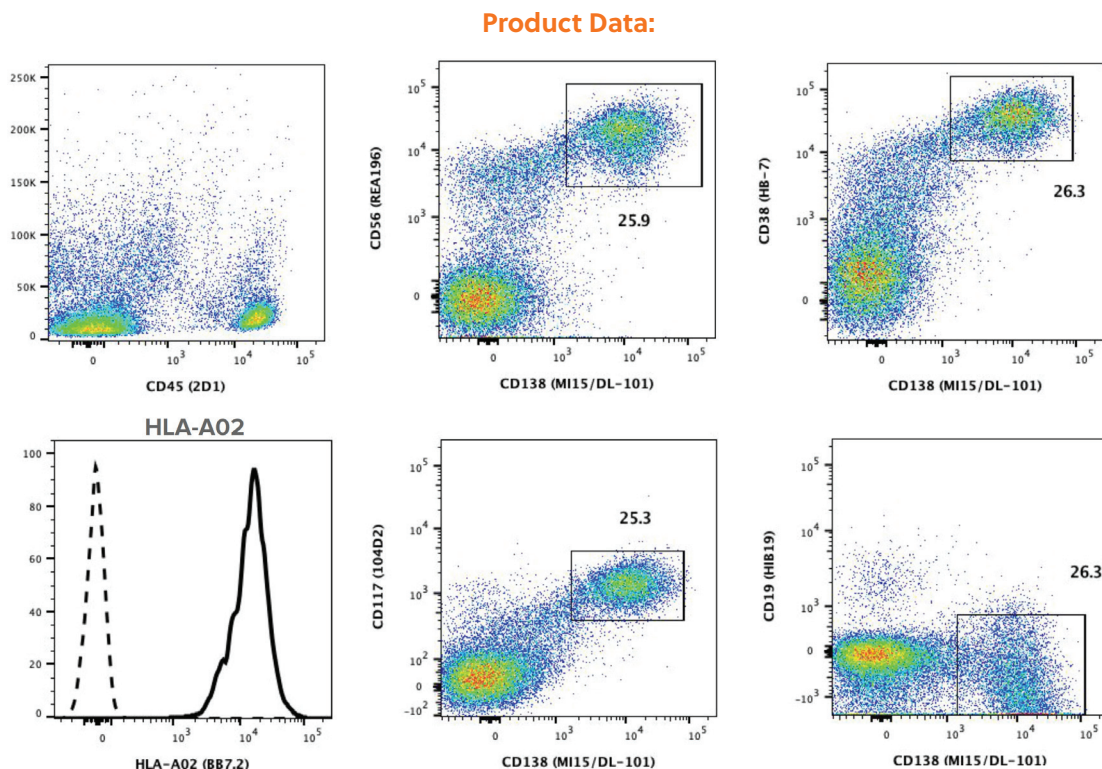


Figure 1:

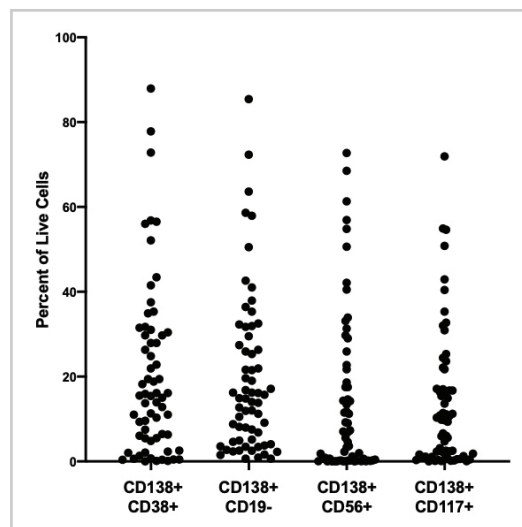
Representative Flow Plots

Representative flow cytometry plots from cryopreserved bone marrow mononuclear cells. All flow plots are generated off of live (DAPI-) singlets, with the exception of the HLA-A02 histograms, which are gated on CD45+ cells.

Solid line represents HLA-A02 staining, while the dotted line represents the FMO control.

Figure 2: Representative Data Set of Plasma Cells in Multiple Myeloma Patients

Percentage of CD138+ CD38+, CD138+ CD19-, CD138+ CD56+, and CD138+ CD117+ cells across 64 multiple myeloma patients with varying disease statuses. Each dot represents a unique patient.



Hyper-Annotated™ Product Annotation Information

HLA Typing:	HLA-A02 via flow cytometry
Patient Demographic Characterization:	Cell count, viability, age, sex, ethnicity, weight, height, smoking status, alcohol history, and other information.
Pathology Report:	Confirmation of diagnosis, donor demographic data, date of procedure, and if applicable, treatment status, stage, grade, comorbidities, current medications, and lab values.
Format:	Bone marrow mononuclear cells are frozen in FBS + 10% DMSO.
Anticoagulant:	Sodium heparin

