Whole blood peripheral blood leukocyte immunophenotyping MGP_PBI_001

Purpose

Whole blood peripheral blood leukocyte immunophenotyping

Procedure

Peripheral blood leukocyte assay is performed at 16 weeks of age (Mice were fed on Mouse Breeder Diet (5021, Labdiet) from weaning)

Non-fasted mice are terminally anaesthetised and blood is collected into EDTA coated tubes via the retro-orbital sinus. Whole blood is stained with two titrated cocktails of antibodies.

Panel 1 containing CD45, TCRab, TCRgd, CD161, CD4, CD8, CD25, CD44, CD62L and KLRG1.

Panel 2 containing CD45, CD19, IgD, Ly6B, Ly6G, Ly6C, CD11b and I-A/I-E.

Samples are fixed and red blood cells lysed prior to acquisition on a BD LSR II flow cytometer after running automated compensation using compbeads and BD FACSDiva software.

Data is analysed using FlowJo after singlet doublet discrimination, a time gate is used to exclude HTS issues and leukocytes identified with a SSC and CD45 gate. Total T cells, alpha beta T cells, $CD4^+$ alpha beta T cells, $CD8^+$ alpha beta T cells, gamma delta T cells, NKT cells, NK cells, B cells, monocytes, granulocytes and eosinophils are reported as percentage of leukocytes. $CD4^+$ $CD25^+$ regulatory alpha beta T cells, $CD4^+$ $CD44^{hi}$ $CD62L^{lo}$ alpha beta T cells, $CD4^+$ $KLRG1^+$ alpha beta T cells, $CD8^+$ $CD44^{hi}$ $CD62L^{lo}$ alpha beta T cells, $CD8^+$ $KLRG1^+$ alpha beta T cells, $KLRG1^+$ NK cells, IgD^+ B cells, $Ly6C^{hi}$ $I\text{-}A/I\text{-}E^{lo}$ monocytes and $Ly6C^{lo}$ $I\text{-}A/I\text{-}E^{lo}$ monocytes are reported as percentage of parent. Using the white blood cell count obtained from the haematology analysis absolute cell counts are derived for each population and reported as cells/ul.

Parameters and Metadata

Total T cell percentage MGP_PBI_001_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: total_t_cell_percentage

Alpha beta T cell percentage MGP_PBI_002_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: alpha_beta_t_cell_percentage

CD4+ alpha beta T cell percentage MGP_PBI_003_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: cd4_alpha_beta_t_cell_percentage

CD8+ alpha beta T cell percentage MGP_PBI_004_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: cd8_alpha_beta_t_cell_percentage

Gamma delta T cell percentage MGP_PBI_005_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: gamma_delta_t_cell_percentage

NKT cell percentage MGP_PBI_006_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: nkt_cell_percentage

NK cell percentage MGP_PBI_007_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: nk_cell_percentage

CD4+ CD25+ alpha beta regulatory T cell percentage MGP_PBI_008_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: cd4_cd25_alpha_beta_regulatory_t_cell_percentage

---

CD4+ CD44+ CD62L- alpha beta effector T cell percentage

MGP_PBI_009_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: cd4_cd44_cd62l_alpha_beta_effector_t_cell_percentage

---

CD8+ CD44+ CD62L- alpha beta effector T cell percentage

MGP_PBI_010_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: cd8_cd44_cd62l_alpha_beta_effector_t_cell_percentage

---

KLRG1+ mature NK cell percentage MGP_PBI_011_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: klrg1_mature_nk_cell_percentage

CD4+ KLRG1+ alpha beta T cell percentage MGP_PBI_012_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: cd4_klrg1_alpha_beta_t_cell_percentage

CD8+ KLRG1+ alpha beta T cell percentage MGP_PBI_013_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: cd8_klrg1_alpha_beta_t_cell_percentage

B cell percentage MGP_PBI_014_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: b_cell_percentage

IgD+ mature B cell percentage MGP_PBI_015_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: igd_mature_b_cell_percentage

Monocyte percentage MGP_PBI_016_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: monocyte_percentage

Ly6Chigh monocyte percentage MGP_PBI_017_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: ly6chigh_monocyte_percentage

Ly6Clow monocyte percentage MGP_PBI_018_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: ly6clow_monocyte_percentage

Neutrophil percentage MGP_PBI_019_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: neutrophil_percentage

Eosinophil percentage MGP_PBI_020_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: %

Description: eosinophil_percentage

Total T cell number MGP_PBI_021_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: total_t_cell_number

Alpha beta T cell number MGP_PBI_022_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: alpha_beta_t_cell_number

CD4+ alpha beta T cell number MGP_PBI_023_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: cd4_alpha_beta_t_cell_number

CD8+ alpha beta T cell number MGP_PBI_024_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: cd8_alpha_beta_t_cell_number

Gamma delta T cell number MGP_PBI_025_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: gamma_delta_t_cell_number

NKT cell number MGP_PBI_026_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: nkt_cell_number

NK cell number MGP_PBI_027_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: nk_cell_number

CD4+ CD25+ alpha beta regulatory T cell number MGP_PBI_028_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: cd4_cd25_alpha_beta_regulatory_t_cell_number

CD4+ CD44+ CD62L- alpha beta effector T cell number MGP_PBI_029_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: cd4_cd44_cd62l_alpha_beta_effector_t_cell_number

---

CD8+ CD44+ CD62L- alpha beta effector T cell number MGP_PBI_030_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: cd8_cd44_cd62l_alpha_beta_effector_t_cell_number

---

KLRG1+ mature NK cell number MGP_PBI_031_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: klrg1_mature_nk_cell_number

CD4+ KLRG1+ alpha beta T cell number MGP_PBI_032_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: cd4_klrg1_alpha_beta_t_cell_number

CD8+ KLRG1+ alpha beta T cell number MGP_PBI_033_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: cd8_klrg1_alpha_beta_t_cell_number

B cell number MGP_PBI_034_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: b_cell_number

IgD+ mature B cell number MGP_PBI_035_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: igd_mature_b_cell_number

Monocyte number MGP_PBI_036_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: monocyte_number

Ly6Chigh monocyte number MGP_PBI_037_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: ly6chigh_monocyte_number

Ly6Clow monocyte number MGP_PBI_038_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: ly6clow_monocyte_number

Neutrophil number MGP_PBI_039_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: neutrophil_number

Eosinophil number MGP_PBI_040_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** true **Is Annotated:** true

Unit Measured: cells/ul

Description: eosinophil_number

Equipment manufacturer MGP_PBI_041_001 | v1.0

procedureMetadata

Req. Analysis: true **Req. Upload:** true **Is Annotated:** false

Description: equipment_manufacturer

Options: BD Biosciences,

Equipment model MGP_PBI_042_001 | v1.0

procedureMetadata

Req. Analysis: true **Req. Upload:** true **Is Annotated:** false

Description: equipment_model

Options: LSR II,

Anesthesia used for blood collection MGP_PBI_043_001 | v1.0

procedureMetadata

Req. Analysis: true **Req. Upload:** true **Is Annotated:** false

Description: anesthesia_used_for_blood_collection

Options: Injection narcosis with Ketamine (100mg/kg)/Xylazine (10mg/kg),
Injection narcosis with Tribromoethanol (Avertin),

Comment MGP_PBI_044_001 | v1.0

simpleParameter

Req. Analysis: false **Req. Upload:** false **Is Annotated:** false

Description: comment