

# 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<sup>+</sup> alpha beta T cells, CD8<sup>+</sup> 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<sup>+</sup> CD25<sup>+</sup> regulatory alpha beta T cells, CD4<sup>+</sup> CD44<sup>hi</sup> CD62L<sup>lo</sup> alpha beta T cells, CD4<sup>+</sup> KLRG1<sup>+</sup> alpha beta T cells, CD8<sup>+</sup> CD44<sup>hi</sup> CD62L<sup>lo</sup> alpha beta T cells, CD8<sup>+</sup> KLRG1<sup>+</sup> alpha beta T cells, KLRG1<sup>+</sup> NK cells, IgD<sup>+</sup> B cells, Ly6C<sup>hi</sup> I-A/I-E<sup>lo</sup> monocytes and Ly6C<sup>lo</sup> I-A/I-E<sup>lo</sup> 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

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## 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

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## 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

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## 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

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## **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

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## **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

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## **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

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## CD4+ CD25+ alpha beta regulatory T cell percentage MGP\_P

BI\_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

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## 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

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## 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

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## KLRG1+ mature NK cell percentage MGP\_PBI\_011\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: true

Is Annotated: true

Unit Measured: %

Description: klrp1\_mature\_nk\_cell\_percentage

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## 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\_klrp1\_alpha\_beta\_t\_cell\_percentage

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## 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

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## 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

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## 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

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## **Monocyte percentage** MGP\_PBI\_016\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Unit Measured:** %

**Description:** monocyte\_percentage

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## **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

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## **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

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## **Neutrophil percentage** MGP\_PBI\_019\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Unit Measured:** %

**Description:** neutrophil\_percentage

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## **Eosinophil percentage** MGP\_PBI\_020\_001 | v1.0

simpleParameter

**Req. Analysis:** false

**Req. Upload:** true

**Is Annotated:** true

**Unit Measured:** %

**Description:** eosinophil\_percentage

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## **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

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## 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

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## 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

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## 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

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## **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

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## **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

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## **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

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## CD4+ CD25+ alpha beta regulatory T cell number MGP\_PBI\_0

28\_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

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## 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

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## 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

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## 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: klr1\_mature\_nk\_cell\_number

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## 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\_klr1\_alpha\_beta\_t\_cell\_number

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## 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

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## 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

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## 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

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## 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

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## 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

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## 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

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## 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

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## 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

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## Equipment manufacturer MGP\_PBI\_041\_001 | v1.0

procedureMetadata

Req. Analysis: true

Req. Upload: true

Is Annotated: false

Description: equipment\_manufacturer

Options: BD Biosciences,

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## Equipment model MGP\_PBI\_042\_001 | v1.0

procedureMetadata

Req. Analysis: true

Req. Upload: true

Is Annotated: false

Description: equipment\_model

Options: LSR II,

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## 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),

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## Comment MGP\_PBI\_044\_001 | v1.0

simpleParameter

Req. Analysis: false

Req. Upload: false

Is Annotated: false

Description: comment

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