Figure S4. Detailed CD8+ T cell Compartment Interrogation.

Detailed CD8+ T cell compartment interrogation in paired sample P1

% GRZB+ of Ki67+ CD8+ T cells

Baseline

Treatment

CD45+ CD3+ CD8+
CD45+ CD3+ CD8-
CD45+ CD3- CD20+ CD66b-
Tryptase+ CD68+
All other CD45+

Tbet+ EOMES- (effector)
Tbet+ EOMES- (effector memory)
Tbet+ EOMES- (memory)
Tbet+ EOMES- (naive)
Detailed CD8⁺ T cell compartment interrogation in paired sample P2

Baseline

Treatment

% GRZB⁺ of Ki67⁺ CD8⁺ T cells

0 20 40 60 80 100

Tbet⁺ EOMES⁻

Tbet⁺ EOMES⁺

Tbet⁺ EOMES⁺ (effector)

Tbet⁺ EOMES⁺ (effector memory)

Tbet⁺ EOMES⁺ (memory)

Tbet⁺ EOMES⁻ (naive)

Baseline

Treatment
Detailed CD8⁺ T cell compartment interrogation in paired sample P3
Detailed CD8^+ T cell compartment interrogation in paired sample P4

- Baseline
- Treatment

Legend:
- CD8^+ T cells
- CD4^+ T cells
- CD68^+ myelomonocytic
- Other CD45^+ cells
- Tbet^+ EOMES^- (effector)
- Tbet^+ EOMES^- (effector memory)
- Tbet EOMES^- (memory)
- Tbet EOMES^- (naive)

% GRZB^+ of Ki67^+ CD8^+ T cells

- Baseline
- Treatment

PEMBRO + Acalabrutinib

SD

p16^-
Detailed CD8^+ T cell compartment interrogation in paired sample P5

Baseline

Treatment

% GRZB^+ of Ki67^+ CD8^+ T cells

0 20 40 60 80 100

Baseline

Treatment

CD45^+ CD3^+ CD8^+

CD45^+ CD3^+ CD8^-

CD45^+ CD3^+ CD20^+ CD66b^-

Tryptase^+ CD68^+

All other CD45^+

Tbet^+ EOMES^+ (effector)

Tbet^+ EOMES^+ (effector memory)

Tbet^+ EOMES^+ (memory)

Tbet^+ EOMES^+ (naive)
Detailed CD8⁺ T cell compartment interrogation in paired sample P6

- Baseline
- Treatment

% GRZB⁺ of Ki67⁺ CD8⁺ T cells

- Tbet⁺ EOMES⁻
- Tbet⁺ EOMES⁺
- Tbet⁻ EOMES⁺
- Tbet⁻ EOMES⁻

Legend:
- Blue: Baseline
- Red: Treatment

- CD45⁺ CD3⁺ CD8⁺
- CD45⁺ CD3⁺ CD8⁺
- CD45⁺ CD3⁻ CD20⁻ CD66b⁻
- Tryptase⁻ CD68⁺
- All other CD45⁺
- Tbet⁺ EOMES⁻ (effector)
- Tbet⁺ EOMES⁺ (effector memory)
- Tbet EOMES⁺ (memory)
- Tbet EOMES⁻ (naive)

p16⁺
PEMBO
PD
Detailed CD8⁺ T cell compartment interrogation in paired sample P9

Baseline

Treatment

% GRZB⁺ of Ki67⁺ CD8⁺ T cells

- Tbet⁺ EOMES⁻
- Tbet⁺ EOMES⁺
- Tbet⁺ EOMES⁺ (effector)
- Tbet⁺ EOMES⁺ (effector memory)
- Tbet⁺ EOMES⁺ (memory)
- Tbet⁺ EOMES⁻ (naive)

Legend:
- Blue: Baseline
- Red: Treatment

- CD45⁺ CD3⁺ CD8⁺
- CD45⁺ CD3⁺ CD8⁻
- CD45⁺ CD3⁻ CD20⁻ CD66b⁻ tryptase⁻ CD68⁺
- All other CD45⁺
Detailed CD8⁺ T cell compartment interrogation in paired sample P7 and P10 (baseline only)

**PEMBRO + Acalabrutinib**
- **Baseline**
  - CD45⁺ CD3⁺ CD8⁺
  - CD45⁺ CD3⁺ CD4⁺
  - CD45⁺ CD3⁺ CD20⁺ CD66b⁺
  - Tryptase CD68⁺
  - All other CD45⁺

**PD**
- **Tbet⁺ EOMES⁺ (effector)
- Tbet⁺ EOMES⁺ (effector memory)
- Tbet⁺ EOMES⁺ (memory)
- Tbet⁺ EOMES⁺ (naive)**

**PEMBRO + Acalabrutinib**
- **Baseline**

**PD**
- **Tbet⁺ EOMES⁺ (effector)
- Tbet⁺ EOMES⁺ (effector memory)
- Tbet⁺ EOMES⁺ (memory)
- Tbet⁺ EOMES⁺ (naive)**