T Cell Immune Checkpoints

Interest in any of the products, request or order them at Bio-Connect.
Regulation and activation of T lymphocytes depend on signaling by the T cell receptor (TCR) and also by cosignaling receptors that deliver negative (–) or positive (+) signals.

**Diagram: T Cell Immune Checkpoints**

- **APC / Tumor cell / Dendritic cell**
  - PD-L1 [B7-H1; CD274] or PD-L2 [B7-DC; CD273]
  - CD80 [B7-1] or CD86 [B7-2]
  - ICOSL [B7-H2; B7RP1; CD275]
  - B7-H3 [CD276] / B7-H4 [VTCN1]
  - VISTA [B7-H5; PD-1H; GI24]
  - B7-H7 [HHLA2]
  - Butyrophilin Family Members (e.g. Btnl2, Skint1, MÖG, CD277)
  - HVEM [TNFRSF14; CD270]
  - MHC class I or II
  - CD137L [TNFRSF9; 4-1BBL]
  - OX40L [TNFRSF4; CD252]
  - CD70 [TNFSF7; CD27L]
  - CD40 [TNFRSF5]
  - GITRL [TNFRSF18]
  - CD155 [PVR; Necl-5]
  - CD112 [PVRL2; Nectin-2]
  - CD200
  - CD48 [BCM-1; BLAST-1]
  - Gal-9
  - Adenosine
  - IDO1, TDO

- **T cell**
  - ?
  - PD-1 [CD279]
  - CD28
  - CTLA-4 [CD152]
  - ICOS [CD278]
  - ICOSL [B7-H2; B7RP1; CD275]
  - B7-H3 [CD276] / B7-H4 [VTCN1]
  - VISTA [B7-H5; PD-1H; GI24]
  - B7-H7 [HHLA2]
  - Butyrophilin Family Members (e.g. Btnl2, Skint1, MÖG, CD277)
  - HVEM [TNFRSF14; CD270]
  - MHC class I or II
  - CD137 [TNFRSF9; 4-1BBL]
  - OX40 [TNFRSF4; CD134]
  - CD27 [TNFRSF7]
  - CD40L [TNFSF5; CD154]
  - TIM-3 [HAVcr-2]
  - Gal-9
  - Adenosine
  - IDO1, TDO

**Cytokines**
- (TGFβ, IL-1, IL-6, IL-10, IL-12, IL-18)

**Reviews:**