

ImmunoCult™ Human Th2 Differentiation Supplement

Serum-free culture supplement for the differentiation of human naïve CD4+ T cells into Th2 cells

Catalog # 10975 1 mL



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Product Description

ImmunoCult™ Human Th2 Differentiation Supplement contains a human cytokine and blocking antibody formulated to promote the robust activation, expansion, and differentiation of peripheral blood-derived, naïve, CD4+ human T cells into Th2 cells.

ImmunoCult™ Human Th2 Differentiation Supplement is intended for use with ImmunoCult™-XF T Cell Expansion Medium (Catalog #10981) and ImmunoCult™ Human CD3/CD28 T Cell Activator (Catalog #10971).

- Formulated for the induction of human Th2 differentiation
- Optimized for use with ImmunoCult™-XF T Cell Expansion Medium
- Supports significantly higher levels of memory T cells in comparison to competitor Th2 differentiation kit
- Supports up to 3X higher expansion of IL-4-producing CD4+ T cells in comparison to competitor Th2 differentiation kit
- Supplied as a 50X concentrate; after thawing and mixing, the tube contents can be added directly to medium

Properties

- Storage:** Store at -20°C.
- Shelf Life:** Stable for 12 months from date of manufacture (MFG) on label.
- Contains:**
- Recombinant human interleukin 4 (IL-4)
 - Mouse anti-human interferon-gamma (anti-IFN-γ)

Handling / Directions For Use

PREPARATION OF COMPLETE Th2 DIFFERENTIATION MEDIUM

Use sterile techniques to prepare complete Th2 Differentiation Medium (ImmunoCult™ Human Th2 Differentiation Supplement + ImmunoCult™-XF T Cell Expansion Medium). The following example is for preparing 50 mL of complete medium. If preparing other volumes, adjust accordingly.

1. Thaw ImmunoCult™ Human Th2 Differentiation Supplement at room temperature (15 - 25°C) until just thawed. Mix thoroughly.
NOTE: If necessary, centrifuge for 30 seconds to recover liquid from cap.
NOTE: If not used immediately, store supplement at 2 - 8°C for up to 1 month. Do not re-freeze.
2. Add 1 mL of ImmunoCult™ Human Th2 Differentiation Supplement to 49 mL of ImmunoCult™-XF T Cell Expansion Medium (Catalog #10981). Mix thoroughly.

DIFFERENTIATION TO Th2 CELLS

1. Start with purified human naïve CD4+ T cells at 1×10^6 cells/mL in complete Th2 Differentiation Medium.
2. Activate human naïve CD4+ T cells using ImmunoCult™ Human CD3/CD28 T Cell Activator (Catalog #10971) or other desired reagents to activate T cells. Incubate cells at 37°C and 5% CO₂.
3. Adjust the cell density to 1×10^6 cells/mL every 3 - 4 days as needed with the addition of fresh complete Th2 Differentiation Medium.
4. After 7 days of incubation, re-activate cells using ImmunoCult™ Human CD3/CD28 T Cell Activator or other desired reagents to activate T cells. Incubate cells at 37°C and 5% CO₂ for another 7 days.
5. On Day 14, differentiated Th2 cells are ready to be used in the desired application.

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