

Hematopoietic Progenitor Cell Expansion Medium XF

Instruction manual

Hematopoietic Progenitor Cell Expansion Medium XF

| Product | Size | Catalog number |
|---|--------|----------------|
| Hematopoietic Progenitor Cell Expansion Medium XF | 500 ml | C-28021 |

Cytokine Mix E for HPC Expansion Medium XF

| Product | Size | Catalog number |
|--|-------------------------------------|----------------|
| Cytokine Mix E for HPC Expansion Medium XF | 1 ml (sufficient for 100 ml Medium) | C-39890 |
| | 5 ml (sufficient for 500 ml Medium) | C-39891 |

Recommended for

- Human Mononuclear Cells (hMNC)
- Human CD34⁺ Progenitor Cells (hCD34⁺-CB)
- Human Hematopoietic Progenitor Cells (HPCs)

Product description

Our Hematopoietic Progenitor Cell (HPC) Expansion Medium XF (C-28021) provides a highly optimized, serum-free and xeno-free culture system allowing for superior expansion performance of human hematopoietic progenitor cells, e.g., CD34⁺ and CD133⁺ cells. As a result the HPC Expansion medium, together with the Cytokine Mix E, typically promotes a 300–1000 fold expansion of the total cell population. After 2 weeks of expansion about 20–30% of the population express CD34⁺, indicating a 50–200 fold expansion of CD34⁺ progenitor cells.

Cytokine Mix E is a ready-to-use mixture of growth factors optionally available for the

HPC Expansion Medium XF. The serum-free and xeno-free formula contains recombinant human TPO, SCF, FLT-3 ligand and IL-3.

With traditional serum-containing media, the majority of HPC lose their functionality during the expansion process. Our optimized serum-free and xeno-free formulation allows for an expanded cell population that is enriched with functional progenitor cells capable of CFC-formation in appropriate *in vitro* assays.

Supplementant details

The HPC Expansion Medium XF must be supplemented with additional growth factors by the user, e.g., the optionally available Cytokine Mix E (C-39890, 1 ml or C-39891, 5 ml) containing recombinant human TPO, SCF, FLT-3 ligand and IL-3. However, the user may customize the medium by supplementation with growth factors of his choice.

The HPC Expansion Medium XF does not contain antibiotics or antimycotics and is formulated for use in an incubator with an atmosphere of 5% CO₂.

Preparation of the supplemented medium for use

Thaw the supplements at 15–25°C. Aseptically mix the supplement solutions by carefully pipetting up and down. Then, transfer the entire content of each supplement to the Basal Medium. Close the bottle and swirl gently until a homogenous mixture is formed.

For the HPC Expansion Medium XF additionally thaw the Cytokine Mix E at 15–25°C. Aseptically mix the solutions by carefully pipetting up and down. Then, transfer the entire content to the referring amount of complete Medium. Close the bottle and swirl gently until a homogenous mixture is formed. One milliliter of Cytokine Mix E is sufficient for the supplementation of 100 ml HPC Expansion Medium XF. Alternatively, supplement the HPC Expansion Medium XF with growth factors of your choice.

Storage and stability

Store the Basal Medium at 4 to 8°C in the dark, store the SupplementMix and Cytokine Mix at -20°C immediately after arrival. Do not freeze the Basal Medium. If stored properly, the products are stable until the expiry date stated on the label. After adding the SupplementMix to the Basal Medium, the shelf life of the complete medium is 6 weeks at 4 to 8°C. Medium supplemented with Cytokine Mix E should be

used within 2 weeks after addition of the cytokines. Do not freeze the complete medium. For use, pre-warm only an aliquot of the complete medium and keep the remaining medium refrigerated at 4 to 8°C.

Quality control

Each lot of PromoCell HPC Expansion Medium XF is tested for the ability to support the expansion of hematopoietic progenitor cells.

In addition, all lots of media have been tested for the absence of microbial contaminants (fungi, bacteria, mycoplasma).

Intended use

The products are for *in vitro* use only and not for diagnostic or therapeutic procedures. For safety precautions please see appropriate MSDS.

If you require special media modifications, we offer a custom media service starting at 10 bottles per order. Contact us at info@promocell.com to find out more.

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