

Hematopoietic Progenitor Cell Media

PromoCell

Instruction Manual

■ Hematopoietic Progenitor Cell Expansion Medium DXF

Product	Size	Catalog Number
Hematopoietic Progenitor Cell Expansion Medium DXF	500 ml	C-28021

■ Cytokine Mix E for HPC Expansion Medium DXF (optional)

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

■ Hematopoietic Progenitor Medium

Product	Size	Catalog Number
Hematopoietic Progenitor Medium (Ready-to-use)	100 ml	C-28020

HPC Expansion Medium DXF

Hematopoietic Progenitor Medium

Recommended for

- Human Mononuclear Cells (hMNC)
- Human CD34⁺ Progenitor Cells (hCD34⁺-CB)
- Human CD133⁺ Progenitor Cells (hCD133⁺-CB)
- Human Hematopoietic Progenitor Cells (HPCs)

Product Description

The PromoCell Hematopoietic Progenitor Cell (HPC) Expansion Medium DXF has been designed for the maximum expansion of primitive HPCs in a fully defined, xeno-free culture environment. Due to the utilization of exclusively synthetic, recombinant or plant-sourced materials, this medium is chemically defined and free of all animal-derived components and substances of human origin with Human Serum Albumin as the only exception. The Medium consists of a bottle of Basal Medium and one vial of SupplementMix. Adding the SupplementMix to the Basal Medium results in the complete Medium. In order to achieve optimal performance, the complete Medium must be supplemented with additional growth factors by the user (see below).

Cytokine Mix E is a ready-to-use mixture of growth factors optionally available for the HPC Expansion Medium DXF. The animal component-free, defined formula contains recombinant human TPO, SCF, flt3-ligand and IL-3. The optimized formulation allows vigorous expansion of hematopoietic progenitor cells, while maintaining their primitive phenotype. Differentiation is largely inhibited.

The PromoCell Hematopoietic Progenitor Medium has been developed for the expansion of hematopoietic progenitors by means of differentiation into more committed lineages of blood cells. Hence, this progenitor medium is suitable for CFU-based assays, e.g. long-term culture initiating cell (LTC-IC) assays.

Supplementation Details

PromoCell Hematopoietic Progenitor Media contain all the growth factors and supplements necessary for the efficient expansion or directed differentiation of blood-derived progenitors into hematopoietic lineages.

Note: In order to achieve optimal performance, the HPC Expansion Medium DXF 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, flt3-ligand and IL-3. However, the user may customize the medium by supplementation with growth factors of his choice.

Hematopoietic Progenitor Media do not contain antibiotics or antimycotics and are formulated for use in an incubator with an atmosphere of 5% CO₂.

Preparation of the supplemented Medium for Use

Thaw the supplements at 15 to 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 DXF additionally thaw the Cytokine Mix E at 15 to 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 DXF. Alternatively, supplement the HPC Expansion Medium DXF 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.

Note: The supplements are delivered thawed and can be frozen after arrival without losing any activity.

Quality Control

All lots of PromoCell Hematopoietic Progenitor Media are subjected to comprehensive quality control tests using primary human mononuclear cells as well as purified hematopoietic progenitor cells from cord blood. Each lot of PromoCell HPC-Expansion Medium DXF is tested for the ability to support the expansion of hematopoietic progenitor cells with a primitive phenotype. Each lot of PromoCell Hematopoietic Progenitor Medium is tested for the capacity to induce directed differentiation into hematopoietic lineages using purified CD34⁺ progenitor cells from cord blood. Approved in-house lots of media are used as a reference. 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.

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