

# StemPro®-34 SFM Complete Medium

## Description

StemPro®-34 SFM is a serum-free medium specifically formulated to support the growth of human hematopoietic progenitor cells (for example, CD34<sup>+</sup>) in culture. StemPro®-34 SFM can be used to study hematopoietic cells from bone marrow, peripheral blood, or neonatal cord blood. StemPro®-34 SFM consists of a basal liquid medium and frozen 40X nutrient supplement (StemPro®-34 Nutrient Supplement) which is added at the time of use. StemPro®-34 SFM is manufactured without cytokines and hematopoietic growth factors, giving the investigator the freedom to use any factor or combination of factors required in ones' studies. StemPro®-34 SFM contains components of human, recombinant or synthetic origin and is performance-tested on normal human bone marrow.

Product	Catalog no.	Amount	Storage	Shelf life*
StemPro®-34 SFM Kit	10639-011	1 kit		
Contains:				
StemPro®-34 SFM (1X), liquid	10640-019	500 mL	2°C to 8°C; Protect from light	18 months
StemPro®-34 Nutrient Supplement (40X)**	10641-025*	13 mL	-20°C to -5°C; Protect from light	30 months

\* Shelf life duration is determined from Date of Manufacture.

\*\*StemPro 34® SFM Nutrient Supplement is not sold separately.

## Product use

For Research Use Only. Not for use in diagnostic procedures.

## Important information

- Do not use this product if the product packaging appears compromised, if StemPro®-34 Nutrient Supplement is received thawed, or if StemPro®-34 SFM appears cloudy or a visible precipitate is observed.
- Complete StemPro®-34 SFM has a shelf life of 30 days when stored in the dark at 2° to 8°C.
- Thawed StemPro®-34 SFM Nutrient Supplement is stable for 14 days when stored in the dark at 2° to 8°C.

## Safety information

Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

### StemPro®-34 Nutrient Supplement (40X) only

Caution: Human origin materials are non-reactive (donor level) for anti-HIV 1 & 2, anti-HCV, and HB<sub>s</sub>Ag. Handle in accordance with established bio-safety practices.

## Prepare medium

Supplement StemPro®-34 SFM Basal Medium with StemPro®-34 Nutrient Supplement and L-glutamine:

- Thaw StemPro®-34 Nutrient Supplement overnight at 4°C. Thoroughly mix by gently inverting the vial several times.
- Aseptically add the entire contents (13 mL) of StemPro®-34 Nutrient Supplement directly to a 500 mL bottle of StemPro®-34 SFM Basal Medium before use. Swirl to mix.

**Note:** StemPro®-34 Nutrient Supplement may be thawed, aliquoted and refrozen once. Avoid repeated freeze/thaw cycles and use immediately once thawed.

- Aseptically add 5 mL 200 mM L-glutamine (2 mM final) to 500 mL of StemPro®-34 SFM Basal Medium before use.
- Supplement Complete StemPro®-34 SFM with cytokines or growth factors for extended support of progenitor cells.

**Note:** For hematopoietic stem cell (HSC) culture, we recommend adding the cytokines SCF (100 ng/mL), IL-3 (50 ng/mL), and GM-CSF (25 ng/mL) to Complete StemPro®-34 SFM immediately before use.

## Culture conditions

**Media:** Complete StemPro®-34 SFM

**Cells:** Human hematopoietic progenitor cells

**Temperature range:** 36°C to 38°C

**Incubator atmosphere:** Humidified atmosphere of 4–6% CO<sub>2</sub> in air. Ensure proper gas exchange and minimize exposure of cultures to light.

**Culture conditions:** Stationary suspension

**Recommended culture vessels:** T-Flasks

Our research data has shown that normal bone marrow cells can be held at 2°C to 8°C, in complete StemPro®-34 SFM, without added growth factors, for 5–7 days without significant loss of cell viability as determined by trypan blue dye exclusion.

## Use









For procedures detailing StemPro®-34 SFM use, refer to publication number MAN0005808 included with StemPro®-34 Medium and CD34+ Cell Kit (Cat. no. A14509) available at [www.lifetechnologies.com/manuals](http://www.lifetechnologies.com/manuals).

## Related products

Product	Catalog no.
L-Glutamine, 200 mM (100X), liquid	25030
GlutaMAX™-I, 200 mM (100X), liquid	35050
SCF (c-kit Ligand) Recombinant Human	PHC2111
IL-3 Recombinant Human	PHC0033
GM-CSF Recombinant Human	PHC2013
StemPro®-34 Medium and CD34 <sup>+</sup> Cells Kit	A14509
Dynal® CD34 Progenitor Cell Selection System	113-01D
Trypan Blue Solution, 0.4%	15250
Countess® Automated Cell Counter	C10227

## Explanation of symbols and warnings

The symbols present on the product label are explained below:

			
Caution, consult accompanying documents	Consult instructions for use	Keep away from light	Temperature Limitation
			
Use By:	Batch code	Catalog number	Sterilized using aseptic processing techniques

## Limited product warranty

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For further assistance, email [techsupport@lifetech.com](mailto:techsupport@lifetech.com)

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