

Instruction Manual

■ Osteoblast Growth Medium

| Product | Size | Catalog Number |
|--|------------|----------------|
| Osteoblast Growth Medium (Ready-to-use) | 500 ml | C-27001 |
| Osteoblast Basal Medium | 500 ml | C-27010 |
| Osteoblast Basal Medium, phenol red-free | 500 ml | C-27015 |
| Osteoblast Growth Medium SupplementMix | for 500 ml | C-39615 |

■ Osteoblast Mineralization Medium

| Product | Size | Catalog Number |
|---|--------|----------------|
| Osteoblast Mineralization Medium (Ready-to-use) | 100 ml | C-27020 |

Recommended for

- Human Osteoblasts (HOB)

Product Description

PromoCell Osteoblast Growth Medium has been optimized for the *in vitro* cultivation of human osteoblasts.

PromoCell Osteoblast Mineralization Medium has been developed for the efficient induction of strong mineralization in human osteoblast cultures. Extensive extracellular calcium-deposits can be observed after 21 days by following an easy one-step protocol.

The Media are optimized for primary human cells, but can also be used for bovine, murine, and rat osteoblasts as well as osteoblast cell lines.

The Media (Ready-to-use) consist of one bottle of Basal Medium and one vial of SupplementMix. Adding the SupplementMix to the Basal Medium results in the complete Medium.

Basal Medium (with or without phenol red) as well as the Osteoblast Growth Medium SupplementMix can also be purchased separately.

Final supplement concentrations
(after addition to the medium)

Osteoblast Growth Medium

| | |
|--------------------|-------------|
| ■ Fetal Calf Serum | 0.1 ml / ml |
|--------------------|-------------|

Supplementation Details

PromoCell Osteoblast Growth Medium contains all the supplements necessary for the optimal growth of human osteoblasts.

PromoCell Osteoblast Mineralization Medium contains all the growth factors and supplements necessary for mineralization of human osteoblasts.

PromoCell Osteoblast 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 SupplementMix at 15 to 25°C. Aseptically mix the SupplementMix by carefully pipetting up and down. Then, transfer the entire content of the SupplementMix to the Basal Medium. Close the bottle and swirl gently until a homogenous mixture is formed.

Instruction for use of Osteoblast Mineralization Medium

For mineralization of human osteoblasts culture the cells in Osteoblast Growth Medium to total confluency. Replace the Growth Medium with Osteoblast

Mineralization Medium after 24 - 72 hours confluency of the cells. Incubate the cells in Osteoblast Mineralization Medium for 21 days and change the medium every third day. Be careful not to disturb the cell monolayer. Fix and stain the cells for osteogenic markers.

Storage and Stability

Store the Basal Medium at 4 to 8°C in the dark and the SupplementMix 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. 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 SupplementMix is delivered thawed and can be frozen after arrival without losing any activity.

Quality Control

All lots of PromoCell Osteoblast Growth Medium are subjected to comprehensive quality control tests using primary

human osteoblasts. Each lot is checked for growth promoting activity, adherence rate, and typical morphology of the tested osteoblasts. Further, all lots of PromoCell Osteoblast Mineralization Medium are tested for their capacity to induce mineralization in primary human osteoblasts. 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.

Note: Due to their low serum content or the absence of serum, PromoCell media are not suitable for trypsin neutralization (e.g. when splitting the cells). Instead we recommend using our DetachKit (C-41200, C-41210, C-41220), which contains HEPES BSS, Trypsin/EDTA and Trypsin Neutralizing Solution.

If you require special media modifications, we offer a Custom Media Service starting at 10 bottles per order. Please ask for details.

PromoCell GmbH

Sickingenstr. 63/65
69126 Heidelberg
Germany

Email: info@promocell.com
www.promocell.com

USA/Canada

Phone: 1 – 866 – 251 – 2860 (toll free)
Fax: 1 – 866 – 827 – 9219 (toll free)

Deutschland

Telefon: 0800 – 776 66 23 (gebührenfrei)
Fax: 0800 – 100 83 06 (gebührenfrei)

France

Téléphone: 0800 90 93 32 (ligne verte)
Téléfax: 0800 90 27 36 (ligne verte)

United Kingdom

Phone: 0800 – 96 03 33 (toll free)
Fax: 0800 – 169 85 54 (toll free)

Other Countries

Phone: +49 6221 – 649 34 0
Fax: +49 6221 – 649 34 40