Preadipocyte/Adipocyte Media

PromoCell®

Instruction manual

Preadipocyte Growth Medium

Product	Size	Catalog number
Preadipocyte Growth Medium (Ready-to-use) – Includes Basal Medium and SupplementMix	500 ml	C-27410
Preadipocyte Growth Medium Kit – Includes Basal Medium and SupplementPack	500 ml	C-27417
Preadipocyte Basal Medium	500 ml	C-27411
Preadipocyte Basal Medium, phenol red-free	500 ml	C-27415
Preadipocyte Growth Medium SupplementMix	for 500 ml	C-39425
Preadipocyte Growth Medium SupplementPack	for 500 ml	C-39427

Preadipocyte Differentiation Medium

Product	Size	Catalog number
Preadipocyte Differentiation Medium Kit – Includes Basal Medium and SupplementPack	500 ml	C-27437
Preadipocyte Differentiation Medium SupplemenPack	for 500 ml	C-39437

Adipocyte Nutrition Medium

Product	Size	Catalog number
Adipocyte Nutrition Medium (Ready-to-use) – Includes Basal Medium and SupplementMix	500 ml	C-27438
Adipocyte Nutrition Medium Kit- Includes Basal Medium and SupplementPack	500 ml	C-27439
Adipocyte Basal Medium	500 ml	C-27431
Adipocyte Basal Medium, phenol red-free	500 ml	C-27435
Adipocyte Nutrition Medium SupplementMix	for 500 ml	C-39438
Adipocyte Nutrition Medium SupplementPack	for 500 ml	C-39439

Recommended for

- Human White Preadipocytes (HWP)
- Human Adipocytes

Product description

Our Preadipocyte Growth Medium is a low-serum medium developed for the undifferentiated expansion of human preadipocytes. The Preadipocyte Differentiation Medium is a defined and animal-component free medium, which induces the differentiation of preadipocytes into mature adipocytes. The mature adipocytes can be cultivated using the low-serum Adipocyte Nutrition Medium. The media are optimized for primary human cells, but can also be used for murine preadipocytes/adipocytes.

The Preadipocyte/Adipocyte Media are available as medium (Ready-to-use) or as Medium Kit.

The medium (Ready-to-use) consists of a 500 ml bottle of basal medium and one vial of SupplementMix. The Medium Kit consists of a 500 ml bottle of basal medium and the SupplementPack (a set of individual vials with pre-measured supplements) allowing the user full control over the media formulation. Adding the SupplementMix or the SupplementPack to the basal medium results in the complete Growth Medium. Basal medium (with or without phenol red) as well as SupplementMix and SupplementPacks can also be purchased separately.

Supplementation details

Our Preadipocyte Growth Medium contains all the growth factors and supplements necessary for the optimal growth of undifferentiated human preadipocytes. The Preadipocyte

Differentiation Medium is a defined and animal-component free medium containing all supplements for effectively inducing the differentiation of preadipocytes into mature adipocytes, e.g. Ciglitazone. The Adipocyte Nutrition Medium is a low-serum medium containing all the growth factors and supplements necessary for the maintenance of mature adipocytes (for details see the table below). The media do not contain antibiotics or antimycotics and are formulated for use in an incubator with an atmosphere of 5% CO_2.

Preparation of the supplemented medium for use

Thaw the SupplementMix or SupplementPack 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.

Note: Light flocculation may be seen upon thawing the supplements containing ECGS. This does not affect the activity. Optionally, the precipitate can be removed by centrifugation under sterile conditions.

Instructions for use of PromoCell Preadipocyte Differentiation Medium/Adipocyte Nutrition Medium

For differentiating human preadipocytes, culture the cells in Preadipocyte Growth Medium to total confluency stage. Replace the Growth Medium with Preadipocyte Differentiation Medium for 72 hours. Then change to PromoCell Adipocyte Nutrition Medium to complete the differentiation process. Feed the cells every 2–3 days with fresh Adipocyte Nutrition Medium. The differentiation process to mature adipocytes is completed after 12–14 days.

Storage and stability

Store the basal medium at 4–8°C in the dark and the SupplementMix or SupplementPack 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 the supplements are added to the basal medium, store at 4–8°C and use within 6 weeks. Do not freeze the complete medium.

For use, pre-warm only an aliquot of the complete medium and keep the remaining medium refrigerated at 4–8°C.

Quality control

All lots of PromoCell Preadipocyte/Adipocyte Media are subjected to comprehensive quality control tests using primary human white preadipocytes. Each lot is checked for growth promoting activity.

In addition, the Preadipocyte Dfferentiation Medium/Adipocyte Nutrition Medium are tested for the capacity to induce the terminal differentiation of preadipocytes into mature adipocytes. All lots of media have been tested for the absence of microbial contaminants (fungi and bacteria).

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.

Final supplement concentrations (after addition to the medium)	Preadipocyte Growth Medium	Preadipocyte Differentiation Medium	Adipocyte Nutrition Medium
Fetal Calf Serum	0.05 ml / ml	—	0.03 ml / ml
Endothelial Cell Growth Supplement	0.004 ml / ml	—	—
Epidermal Growth Factor (recombinant human)	10 ng / ml	—	—
Hydrocortisone	1 µg / ml	—	—
d-Biotin	—	8 µg / ml	8 µg / ml
Insulin (recombinant human)	—	0.5 µg / ml	0.5 µg / ml
Dexamethasone	—	400 ng / ml	400 ng / ml
IBMX	—	44 µg / ml	—
L-Thyroxine	—	9 ng / ml	—
Ciglitazone	—	3 µg / ml	—
Heparin	90 µg / ml	—	—

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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