

# Mesenchymal Stem Cell Medium XF

## Instruction manual

Product	Size	Catalog number
Mesenchymal Stem Cell Growth Medium XF (Ready-to-use)	500 ml	C-28019
Mesenchymal Stem Cell Growth Medium XF, phenol red-free (Ready-to-use)	500 ml	C-28018

### Recommended for

- Human Mesenchymal Stem Cells from Bone Marrow (hMSC-BM)
- Human Mesenchymal Stem Cells from Umbilical Cord Matrix (hMSC-UC)
- Human Mesenchymal Stem Cells from Adipose Tissue (hMSC-AT)

### Product description

Our Mesenchymal Stem Cell Media were developed for the *in vitro* expansion and directed differentiation of mesenchymal stem cells (MSC) from bone marrow, the umbilical cord matrix (Wharton's Jelly) and adipose tissue. The Mesenchymal Stem Cell Media are available as medium (Ready-to-use) and consist of a bottle of basal medium and one vial of SupplementMix. Adding the SupplementMix to the basal medium results in the complete medium.

The Mesenchymal Stem Cell Growth Medium XF (C-28019) and the Mesenchymal Stem Cell Growth Medium XF phenol red-free (C-28018) are serum-free and xeno-free culture media and require vitronectin- or fibronectin-coated vessels (see below).

### Supplementation details

Our Mesenchymal Stem Cell Media contain all the growth factors and supplements necessary for the optimal expansion and directed differentiation of human mesenchymal stem cells.

**Note:** The Mesenchymal Stem Cell Media do

not contain antibiotics or antimycotics and are formulated for use in an incubator with an atmosphere of 5% CO<sub>2</sub>.

### Culture vessel surface coating

Our Mesenchymal Stem Cell Growth Medium XF and Mesenchymal Stem Cell Growth Medium XF, phenol red-free do not contain attachment- and spreading factors. Therefore, culture vessels to be used with Mesenchymal Stem Cell Growth Medium XF and Mesenchymal Stem Cell Growth Medium XF, phenol red-free must be precoated either with 1 µg/cm<sup>2</sup> human fibronectin or 0.5 µg/cm<sup>2</sup> human vitronectin according to the instruction manual of the manufacturer. Alternatively, bovine fibronectin may be used.

### Preparation of the supplemented medium for use

Thaw the SupplementMix in a 37°C water bath with occasional swirling. Do not incubate longer than necessary. In case of visible precipitates after complete thawing, mix gently until all precipitates have re-dissolved. Then, transfer the entire content of the SupplementMix to the basal medium. Close the bottle and swirl gently until a homogenous mixture is formed.

### MSC subculture

For routine subculture of hMSC the use of Accutase (C-41310) is recommended with all MSC Growth Media.

### Storage and stability

Store the basal medium at 4–8°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 supplements to the basal medium, the shelf life of the complete MSC Growth Medium XF and Mesenchymal Stem Cell Growth Medium XF, phenol red-free, is 3 weeks at 4–8°C. Do not freeze the complete medium.

For use, pre-warm only an aliquot of the complete medium at 15–25°C and keep the remaining medium refrigerated at 4–8°C.

### Quality and control

All lots of PromoCell Mesenchymal Stem Cell Media are subjected to comprehensive quality control tests using primary human mesenchymal stem cells. Each lot of Mesenchymal Stem Cell Growth Medium is checked for growth promoting activity, adherence rate, and typical morphology of our mesenchymal stem cells tested for multipotency as proposed by the ISCT [1]. In addition, 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.

For detailed information, please refer to our application note on our website [www.promocell.com](http://www.promocell.com)

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## References

[1] Dominici M, Le Blanc K, Mueller I, Slaper-Cortenbach I, et al., *Cytother* 2006, 8(4):315-7.

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

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**PromoCell GmbH**  
Sickingenstr. 63/65  
69126 Heidelberg  
Germany

**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

[info@promocell.com](mailto:info@promocell.com)  
[www.promocell.com](http://www.promocell.com)

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