

# Datasheet

# Panserin 401

# Serum-free Allround Medium for a Wide Variety of Different Cell Types

| Product      | Description  | Catalogue-No.                                | Size                     |
|--------------|--|--|--------------------------|
| Panserin 401 | Serum-free allround medium for a variety of different cell types | ST04-710401M<br>ST04-710401<br>ST04-71040120 | 100 ml<br>500 ml<br>20 L |

# **Product description**

Panserin 401 is a complete ready-to-use medium for the serum-free cultivation of a multitude of adherent and non-adherent cell types.

# Storage conditions

| Storage:   | 2-8°C (in the dark)                         |
|------------|---|
| Stability: | 10 months from date of production           |
| Size:      | 100 ml, 500 ml, 20 L other sizes on request |

# Composition

Based on Iscove's MEM, trace elements, albumin, cholesterol, soy-lipids and vitamins were added to the medium. Panserin 401 does not contain any growth or attachment factors.

# **Special advantages**

Panserin 401 is a multi-purpose medium suitable for a wide variety of cell types. In Panserin 401 adherent as well as non-adherent cells can be cultivated. As the medium contains no growth factors there is the possibility to investigate effects of specific growth factors added to the cell culture medium.

Among others, the following cells have been cultivated successfully in Panserin 401:

- Hybridoma
- Lymphocytes
- Macrophages
- Fibroblasts
- Melanocytes
- Carcinoma cells
- HEK-cells
- HeLa-cells
- CHO-cells
- Megakaryocytic cell lines (HEL, Dami, CMK)
- HL60-cells



#### Instructions for use

With every adaptation to serum-free media, changes of the cells should be taken into consideration. These changes may concern morphology, karyotype, surface markers, and so on. Thus, cells in serum-free medium may not be identical with those from cultures containing serum in which they originated (selection).

In many cases the switch from serum-containing to serum-free cultivation can be done without any special adaptation procedures. For those cells which do not tolerate an immediate switch we recommend a primary culture with serum containing medium and a stepwise reduction of medium towards a serum-free cultivation. We can provide you with an adaptation protocol for many different cell types. This stepwise adaptation will also be supported by higher cell seeds or using a lowered serum concentration after attachment of the cells in medium containing a higher amount of serum.

For the successful transfer into serum-free cultivation the vitality of the cells is an important factor. Thus the cells should be transferred in the logarithmic growth phase. According to our experience the transfer in the logarithmic growth phase will have higher prospects of success.

Panserin 401 does not contain any attachment factors. With some cell types a pre-treatment of the cell culture vessels with gelatine, collagen, poly-D-lysine or fibronectin may support or enable a culture under serum-free conditions. Please note that a coating may be especially important with low seeding densities.

In adherent cells it should be assured that - if trypsin is used for detachment - the enzyme is completely washed out or is inactivated by trypsin-inhibitors because there is no trypsin inactivating effect of FBS; use trypsin-inhibitor to stop trypsin activity. In some cases of very sensitive cells it could be also reasonable to do the stepwise adaptation and dilution not only with serum but also in the medium which has been used so far.

Panserin media were developed to support cell growth without the use of serum. The all-round version Panserin 401 does not contain any growth factors. Studies on the effect of externally added growth factors will be more valid. For cells which are dependent on specific growth factors these factors should be added in the required concentrations.





SP2/0-Ag-14 in Panserin 401 without prior adaptation

L929 in Panserin 401 without prior adaptation







# References

1) Pilar S et al. (2002) Contribution of CD3 $\gamma$  to TCR regulation and signalling in human mature T lymphocytes. International Immunology 11:1357

2) Toptan T et al. (2010) Rhadinovirus vector-derived human telomerase reverse transcriptase expression in primary T cells. Gene Therapy 17:653

3) Martin F et al. (2005) Lentiviral vectors transcriptionally targeted to hematopoietic cells by WASP gene proximal promoter sequences. Gene Therapy 12:715

4) Montzka K et al. (2010) Expansion of human bone marrow-derived mesenchymal stromal cells: serum-reduced medium is better than conventional medium. Cytotherapy 5:587



# **Technical support**

For technical support, questions or remarks please contact your local PAN-Seratech partner or the technical department of PAN-Seratech via email (<u>info@pan-seratech.com</u>) or phone +49-8543-601630.

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