# Datasheet Panserin 411S

**Serum-free complete medium for cultivation of myeloid and lymphoid cells from bone marrow or peripheral blood for cytogentic assays**

| Product | Description | Catalogue-No. | Size |
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| **Panserin 411S** | **Serum-free complete medium for cultivation of myeloid and lymphoid cells** | **P04-7411S0** | **100 ml** |
| **Panserin 411S** | **Serum-free complete medium for cultivation of myeloid and lymphoid cells** | **P04-7411S1** | **500 ml** |
| **Panserin 411S** | **Serum-free complete medium for cultivation of myeloid and lymphoid cells** | **P04-71411S** | **1000 ml** |

## Product description

Panserin 411S is a complete ready-to-use medium for the serum-free cultivation of myeloid and lymphoid cells from bone marrow or peripheral blood for cytological assays and examination.

Panserin 411S is a completely supplemented medium intended for use in *in vitro* diagnostic procedures for a short term culture of bone marrow or other hematopoietic cells for cytogenetic studies. This product has been rigorously quality control tested by a leading clinical cytogenetic reference laboratory for this application.

Panserin 411S is intended for *in vitro* use and has been designed for establishing cultures of bone marrow and leukaemic blood cells, which then can be used in karyotyping, fluorescence in-situ hybridisation (FISH) or other cytogenetic procedures.

Panserin 411S can be used as a "neutral" medium to culture different haematopoietic cells (myeloid and lymphoid lineages) present in bone marrow or leukaemic blood samples. Panserin 411S can also be used together with a mitogen specific to B- or T-lymphocytes where these particular lineages are being investigated.

## Storage conditions

Storage: 2-8° C
Stability: 10 months
Size: 100 ml, 500 ml, 1000 ml, other sizes on request

## Composition

Based on RPMI 1640 medium, additional trace elements, albumin, cholesterol, soy lipids, vitamins, growth factors and hormones are added.

## Suitability

Panserin 411S is a serum-free complete medium for the cultivation of myeloid and lymphoid cells from peripheral blood or bone marrow. It is suitable for a rapid expansion of blood cells in order to investigate leukemic diseases (e.g. ALL, AML, CLL, CML, MPN, MDS). The state of the art diagnostic techniques of leukemic diseases are based on the interaction of cytomorphology including cytochemistry with immunophenotyping, chromosome banding analysis, FISH and molecular genetics. In Panserin 411S the number and quality of metaphases are significantly higher and independent of individual batches as compared to serum-containing media.

## Instructions for use

Cells ($1x10^7$) are seeded in 5 ml Panserin 411S. Depending on the assay or quality of raw material, one unstimulated culture and an additional one to three cultures with appropriate growth factors are prepared. The culture time is 24 to 72 hours at 37°C in an incubator with 5% $CO_2$ gasing.

The processing of the metaphases is done with hypotonic KCl solution and Carnoy´s fixative.

## Addition of specific growth factors

In some cases specific growth factors may be added to optimize the number of metaphases and to increase the mitotic index.

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| B-CLL | CD40 ligand or<br>CpG oligonucleotide (2µM) + IL-2 (200 U/ml) |
| AML, CML, CMPD, MDS | G-CSF(10ng/ml) + GM-CSF (1ng/ml) + IL-3 (5ng/ml) + SCF (20ng/ml) |

## Limitations

Each batch of Panserin 411S is thoroughly tested for biological performance to ensure cell growth *and in vitro* diagnostic use.

However, for *in vitro* diagnostic applications each laboratory should establish and regularly perform internal quality testing procedures when selecting new cell culture media or utilising new batches of media prior to releasing these to the clinical routine.
In particular, the contribution of PAN Biotech to these procedures is limited merely to providing a culture medium which has been tested and found suitable for the intended use. PAN Biotech therefore does not guarantee a successful implementation for specific settings especially in diagnostic procedures.
In addition, PAN Biotech can not be held responsible for damage due to absence of cell growth or diagnostic failure based solely on the use of PAN Biotech medium.

**Only for *in vitro* diagnostic use by means of culture and growth of human sample material. Not intended for human or animal therapeutic use.**

**USE BIOLOGICAL MATERIAL WITH RESPECTIVE SAFETY PRECAUTIONS**

## Technical Support

Additional information is available on our website : www.pan-biotech.com
For any technical support, questions or remarks please contact your local PAN-Biotech partner or the technical department of PAN-Biotech via email (info@pan-biotech.com).

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