

## Panserin 411S

### Serum-free Complete Medium for Cultivation of Myeloid and Lymphoid Cells from Bone Marrow or Peripheral Blood for Cytogenetic Assays

Product	Description	Catalogue-No.	Size
Panserin 411S	Serum-free complete medium for cultivation of myeloid and lymphoid cells	P04-7411S0	100 ml
		P04-7411S1	500 ml
		P04-7411S	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 for a short term culture of bone marrow or other hematopoietic cells for cytogenetic studies. 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. Haematopoietic cells (myeloid and lymphoid lineages) present in bone marrow or leukaemic blood samples can be cultured in Panserin 411S as a "neutral" medium. Panserin 411S can be supplemented with a mitogen specific to B- or T-lymphocytes where these particular lineages are being investigated.

#### Storage conditions

Storage: 2-8°C  
 Stability: 1 year from date of production  
 Size: 100 ml, 500 ml, 1000 ml other sizes on request

#### Composition

Based on RPMI 1640 medium, additional trace elements, albumin, cholesterol, soy lipids and vitamins. Growth factors and hormones must be added. (e.g. L-Cocktail P02-7411LC and M-Cocktail P02-7411MC)

#### Special advantages

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 leukaemic diseases (e.g. ALL, AML, CLL, CML, MPN, MDS). The state of the art diagnostic techniques of leukaemic diseases are based on the interaction of cytogenetics including cytogenetics with immunophenotyping, chromosome banding analysis, FISH and molecular genetics. In Panserin 411S the number and quality of metaphases are significantly higher without any batch variability as compared to serum-containing media.

#### Instructions for use

Cells ( $1 \times 10^7$ ) 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<sub>2</sub> gassing.

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.

B-CLL CD40 ligand or CpG oligonucleotide (2µM) + IL-2 (200 U/ml)

AML, CML, CMPPD, MDS G-CSF (10ng/ml) + GM-CSF (1ng/ml) + IL-3 (5ng/ml) + SCF (20ng/ml)

#### Limitations

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.

#### Technical support

For 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](mailto:info@pan-biotech.com)) or phone +49-8543-601630.

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