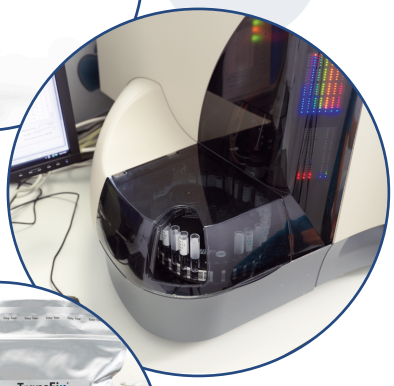
CALTAG

Accuracy for Flow Cytometry

Preserve Cerebrospinal Fluid Leukocytes for 72 hrs to Increase Disease Detection with TransFix® CSF Sample Storage Tubes

IVD



The presence of white blood cells in the cerebrospinal fluid (CSF) is indicative of many central nervous system (CNS) diseases. The detection of leukocyte subsets in CSF is of vital importance for the accurate diagnosis and treatment of such diseases. However, low cellularity and cell viability of leukocytes causes challenges when analysing CSF with flow cytometry. This means that samples must be analysed urgently (within 1 h) which is not always possible.

TransFix® CSF Sample Storage Tubes provides increased recovery of myeloid and lymphoid cells for up to 72 hours for analysis via flow cytometry, compared to untreated or RPMI-treated CSF samples.

Available as **in vitro diagnostic devices** in Europe.

Benefits of CSF Sample Stabilisation

TransFix® allows recovery of leukocytes subsets for up to 72 h days at 2-8°C, maintaining the immunophenotypic profile of CSF for better disease detection. This provides the following advantages:

Better for patients:

- More accurate diagnosis compared to untreated or RPMI-treated CSF samples
- Reduction in the need for repeat lumbar puncture – reduced trauma for patient

Reduced cost:

- Provides the opportunity to transport the samples for centralised diagnosis and multicentre clinical studies
- Greater efficiency in testing – allows for batching of samples prior to testing
- Further tests can be performed on the same sample after the initial analysis, without subject recall

Convenience:

- Easy to use - just transfer the CSF sample into the tube within 1 hour of lumbar puncture and mix by inversion
- Eliminates the need for weekend and evening work
- Reduces the impact of unexpected machine breakdown or staff shortages

Widely endorsed by the clinical community

Recommended in the guidelines published in the British Journal of Haematology (1,2)

Endorsed by:

- The European Society for Clinical Cell Analysis the Italian Society for Clinical Cell Analysis (3)
- The Spanish Lymphoma Group (4)
- The Spanish Group for the Study of CNS Disease in Non-Hodgkins Lymphoma (5)
- The Brazilian Group of Flow Cytometry (6)
- International Working Group on Flow Cytometric Immunophenotyping of Cerebrospinal fluid (7)
- Colombian Consensus of FCM (8)

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TransFix® CSF Sample Storage Tubes provide a superior stabilisation method for CSF up to 72 hrs compared to other methods

Mock CSF was stabilised with TransFix®, basal RPMI and complete RPMI and compared to untreated mock CSF (control). **Figure 1** shows the recovery of lymphocyte subsets and monocytes at each time point. The event numbers for each cell subpopulation in the TransFix®-treated sample remained relatively consistent for at least 72 hours whereas the event numbers in all 3 other samples were low, particularly within the first hour. Cell events also decreased sharply in non-TransFix® treated samples after 24 hours.

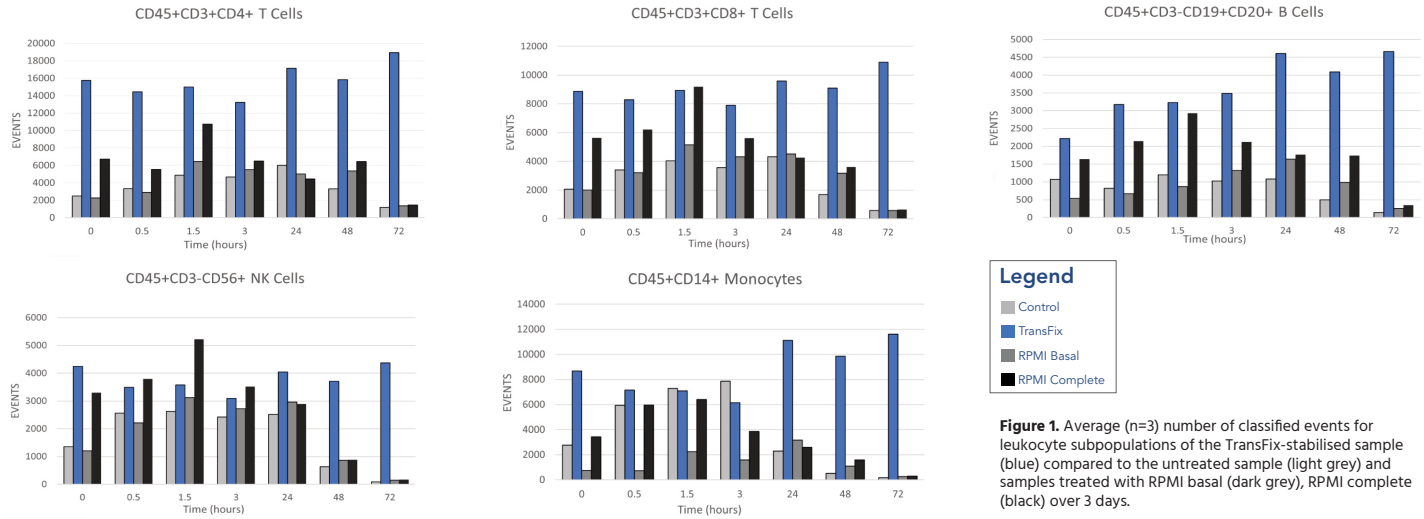

Figure 1. Average (n=3) number of classified events for leukocyte subpopulations of the TransFix-stabilised sample (blue) compared to the untreated sample (light grey) and samples treated with RPMI basal (dark grey), RPMI complete (black) over 3 days.

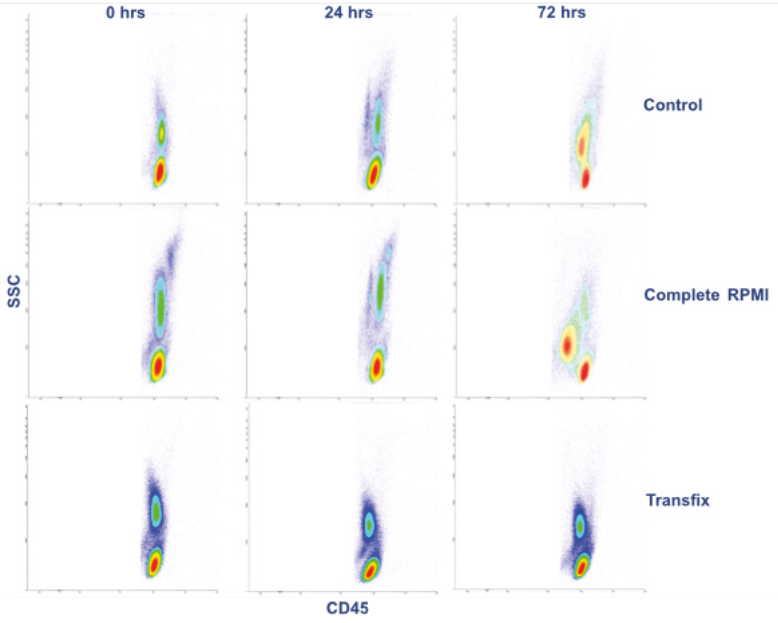

Figure 2. Side scatter vs CD45+ dot plots for the untreated (control), RPMI Complete and TransFix-treated samples. Basal RPMI is not shown as it's comparable to the control.

The dot plots in **Figure 2** show side scatter vs CD45+ for the untreated control, complete RPMI and TransFix®-treated samples at 0, 24 and 72 hours. The plots show that the density of events decreased with time in the control and RPMI-treated samples. The density of the populations remained consistent for the TransFix® treated sample and there was good separation of monocytes and lymphocyte populations.

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Product Formats

5 mL screw cap tubes containing 0.2 mL of TransFix®, optimal to stabilise larger samples of CSF.

Product code	Description
TF-CSF-L-2	TransFix® CSF 1-4 mL Sample Storage Tube (2 tubes)
TF-CSF-L-10	TransFix® CSF 1-4 mL Sample Storage Tube (10 tubes)
TF-CSF-L-50	TransFix® CSF 1-4 mL Sample Storage Tube (50 tubes)

2 mL screw cap tubes containing 0.05 mL of TransFix®, optimal to stabilise smaller samples of CSF.

Product code	Description
TF-CSF-S-2	TransFix® CSF 0.25-1 mL Sample Storage Tube (2 tubes)
TF-CSF-S-10	TransFix® CSF 0.25-1 mL Sample Storage Tube (10 tubes)
TF-CSF-S-50	TransFix® CSF 0.25-1 mL Sample Storage Tube (50 tubes)

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