CytoTrap

Introduction:
Cytocentrifugation represents an approach to transfer cell particles on microscopic slides. In this respect, cytocentrifugation is being increasingly employed in clinical medicine and biological research including microbiology and hematology laboratories. Usually specific centrifuges enabling transfer of cells on microscopic slides are used. Commercially available cytocentrifuges fall into 2 categories: Those which remove the suspension fluid during cell sedimentation and those which retain it. These approaches exhibits both the advantages and disadvantages.

Technology description:
CytoTrap represents an adaptor for cytocentrifugation in conventional centrifuges with the swinging rotor. Its construction enables to remove or retain suspension fluid during cell sedimentation depending on the user needs. It can be also used for the subsequent sample processing (e. g. sample staining and washing).

Key features:

- dry, semi-dry or wet cytocentrifugation can be performed by the same tool
- the subsequent washing and staining after cytocentrifugation without additional manipulation (Figure 1 – Giemsa-Romanowski staining; Figure 2 – Staining of replicating cells)
- at least 50 washing steps with 0.5 ml volume of solutions can be used
- the vacuum pump system can be used for staining and washing
- developed for the use with circular coverslips with diameter up to 15 mm
- optimized for circular coverslips with diameter 12 mm
- the low consumption of the used solutions
- the spotting area diameter for 12 mm coverslips up to 10 mm
- made from PTFE (Teflon)
- autoclavable
- high temperature and chemical resistance
- relative centrifugation force up to 500x g can be used
- for higher centrifugation forces the different material can be used
- fully compatible with the different fixation/permeabilisation and staining protocols including ethanol or formaldehyde fixation and Triton X-100 permeabilisation

Development status:
Prototype. More information is available upon signing a CDA/NDA

IP protection:
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Ownership:
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