



Monoclonal Antibodies and Cryobank

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Monoclonal Antibodies Facility

The facility provides preparation of mouse monoclonal antibodies including immunization using a particular immunization protocol, ELISA testing of production of specific antibodies, cloning of selected samples, freezing of cryobank samples, cultivation of cell culture supernatants, or preparation of ascitic fluid from selected clones and isotype determination of the produced antibody. Further services comprise testing of cell culture supernatants for the presence of mycoplasmas and freezing of cell line banks and hybridomas.

Cryobank

The cryobank serves for long-term storage of samples in liquid nitrogen. The current cryobank capacity is 320,000 samples, with further possible extension. The cryobank stores cell lines, hybridomas, mouse sperm and mouse embryos in liquid nitrogen or its vapours. The storage containers [LABS40K - Taylor-Wharton and 24K] are connected to the exterior liquid nitrogen container for 6,000 litres and supplied automatically. The entire cryobank system is secured by a backup energy source in case of power failure. All operations, diagnostics and monitoring of the level of liquid nitrogen in the storage containers are fully automated and controlled. Parameters [temperature, humidity, O₂ concentration] and safety both in the cryobank and in the individual storage containers are followed by the monitoring system with GSM and web interface outputs.



Monoclonal antibodies laboratory



Storage of samples in liquid nitrogen



Tissue culture incubator for preparation of monoclonal antibodies



Liquid nitrogen storage vessels



From left:
Hana Korábová
Dobromila Matějková, MSc / Head

Not on the picture:
Šárka Šilhánková [until 2009]