Mouse Hepatocytes

Cell specification

The liver fulfills many vital processes in mammals. It is the central organ of energy metabolism (glycolysis, gluconeogenesis, lipid metabolism, amino acid metabolism, and ureagenesis), responsible for the maintenance of the blood sugar level and the synthesis of plasma proteins under physiological and patho-physiological conditions. Hepatocytes are the most prominent cells within the liver. Hepatocytes eliminate toxic substances from the blood. In this biotransformation process transporter proteins (influx and efflux transporter), phase I reactions (cytochrome P450 proteins), phase II reactions (mainly glucuronidation and sulfation) play a central role. Primary hepatocytes are perfectly suited for *in vitro* metabolism and toxicity / detoxification studies prior to preclinical or clinical tests. Propagation of hepatocytes for cell transplantation, three dimensional culture systems and culture in bio-artificial liver support devices is now under investigation.

Mouse hepatocytes are isolated from male or female mice livers. They are available fresh as suspensions, plated in various culture formats (6, 12, 24 and 96well) or cryopreserved. Special configurations can be made available on request.

Recommended medium and culture conditions

We recommend to culture mouse hepatocytes on collagen coated culture plates in MHM (Mouse Hepatocyte Medium), a serum-free culture medium containing Hepatocyte Growth Factor and Epidermal Growth Factor. Hepatocyte specific morphology and functions like cytochrome P450 protein activities are maintained and/or remain inducible under these culture conditions (Fig. 1 and 2).

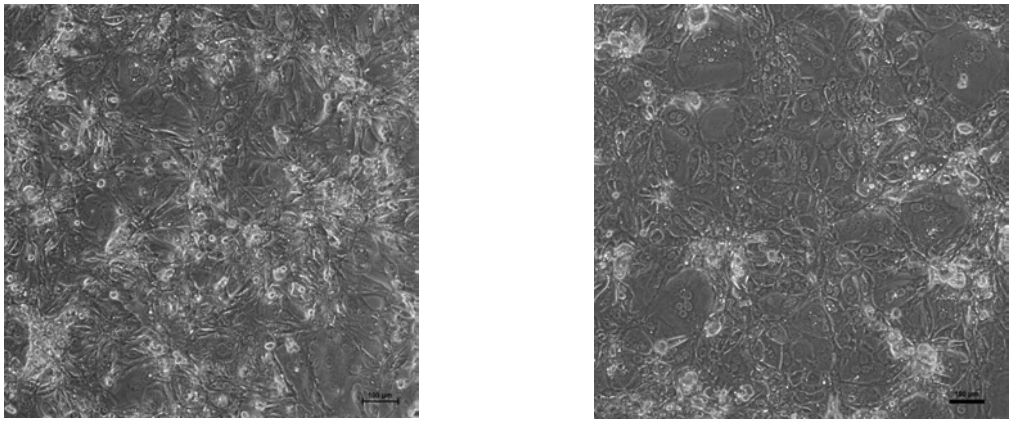

Fig. 1: Mouse hepatocytes at day 3 of culture in 24 well plates cultured with MHM (left panel: fresh, right panel: cryopreserved).

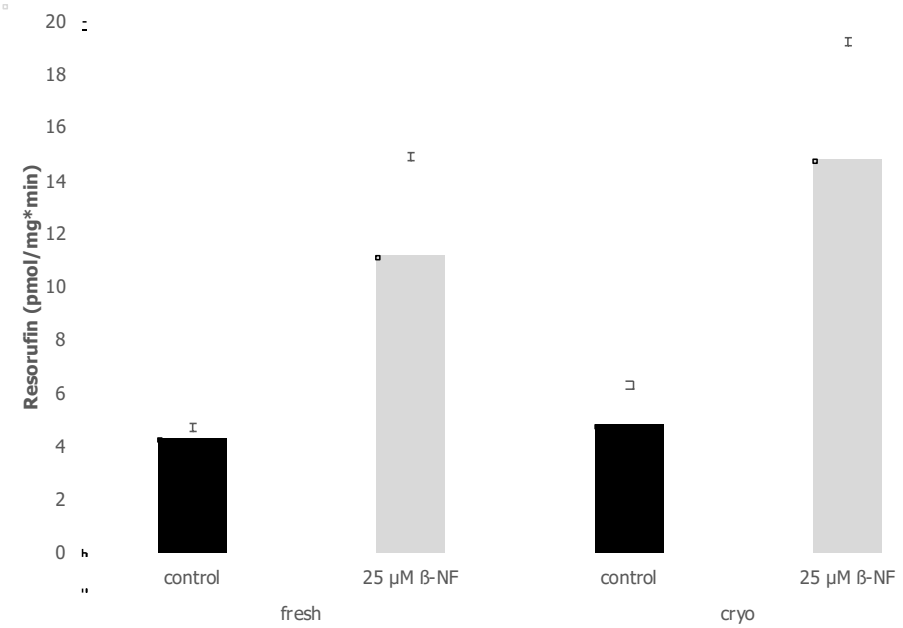

Fig. 2: Induction of Ethoxyresorufin-O-deethylase (EROD) activity at day 3 of culture by ß-Naphthoflavone (ß-NF) for 48 h in mouse hepatocytes cultured with MHM.

Only for research purposes. Not for use in human diagnostics or therapeutics.

Biohazard warning: Tissue fractions such as hepatocytes should be considered as potentially biohazardous, and should be treated as biohazards in the laboratory.

For additional information of for placing an order please contact:

Phone: +49-(0)-385-3993-600
E-mail: info@primacyt.de
Website: www.primacyt.com

Recommended products for culture of mouse hepatocytes:

TK-1	Thawing kit for use in suspension
PTK-1	Plating and Thawing kit
HPM-cryo	Hepatocyte Plating Medium for cryopreserved hepatocytes
MHM-500	Mouse Hepatocyte Medium
RTC-100	Rat Tail Collagen
CCP-xx	Collagen Coated Cell Culture Plates