

## Animal component free Human Hepatocyte Maintenance Medium – Long Term

PRIMACYT has developed an animal-component free Human Hepatocyte Maintenance Medium (ACF-HHMM – Long Term) which is a serum-free culture medium containing Hepatocyte Growth Factor and Epidermal Growth Factor that allows cultivation of differentiated human hepatocytes for several weeks. Hepatocyte specific functions like detoxification of ammonia (urea synthesis and release) and albumin synthesis are maintained for several weeks (Fig. 1). ACF-HHMM may be used for long-term cultivation of hepatocytes or in hepatocyte bioreactors and especially for biological/medical questions where the absence of animal components is absolutely necessary.

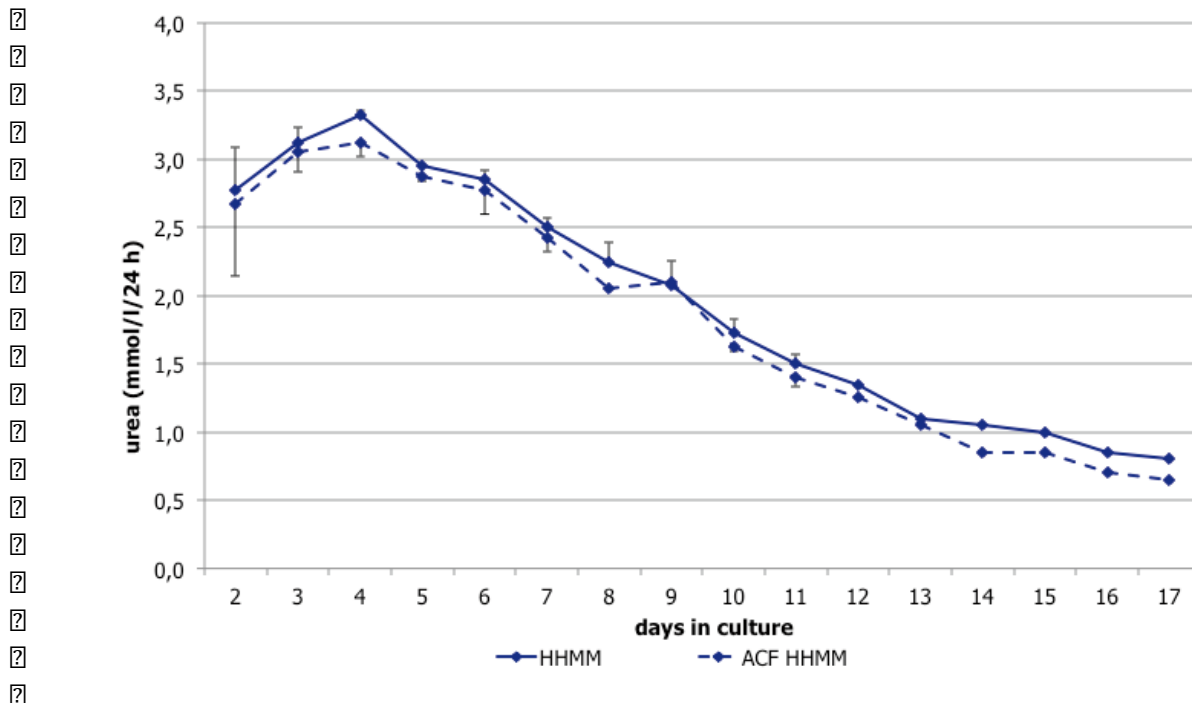


Fig. 1: Comparison of urea release in human hepatocytes cultured in HHMM or in ACF HHMM.

Human hepatocytes cultured in the already well described standard animal component containing Human Hepatocyte Maintenance Medium (HHMM) or in animal component free Human Hepatocyte Maintenance Medium (ACF-HHMM) were treated alternately with two different compounds (C1 and C2). Compound 1 is known to reduce urea synthesis, while compound 2 leads to an increase in ammonia detoxification rate. The level of decrease/increase of urea release is identical in both media (Fig. 2a and 2b). Under both culture conditions the human hepatocytes retain their ability to respond to the specific treatments in a similar way and even after more than two weeks in culture.

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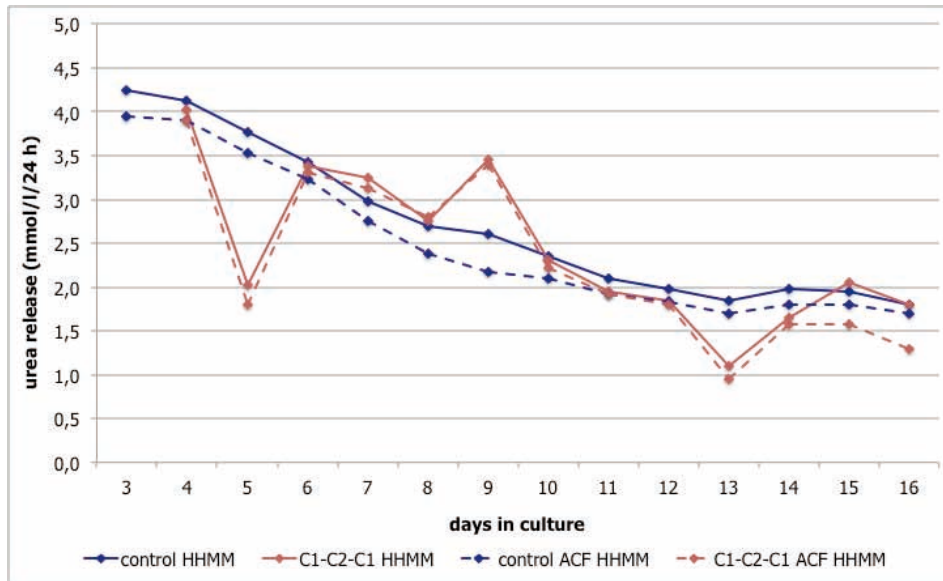


Fig. 2a: Comparison of urea release in human hepatocytes after alternate treatment for 24 h each with compound 1 (C1, day 4), compound 2 (C2, day 8) and compound 1 (day 12) cultured in HHMM or in ACF-HHMM.

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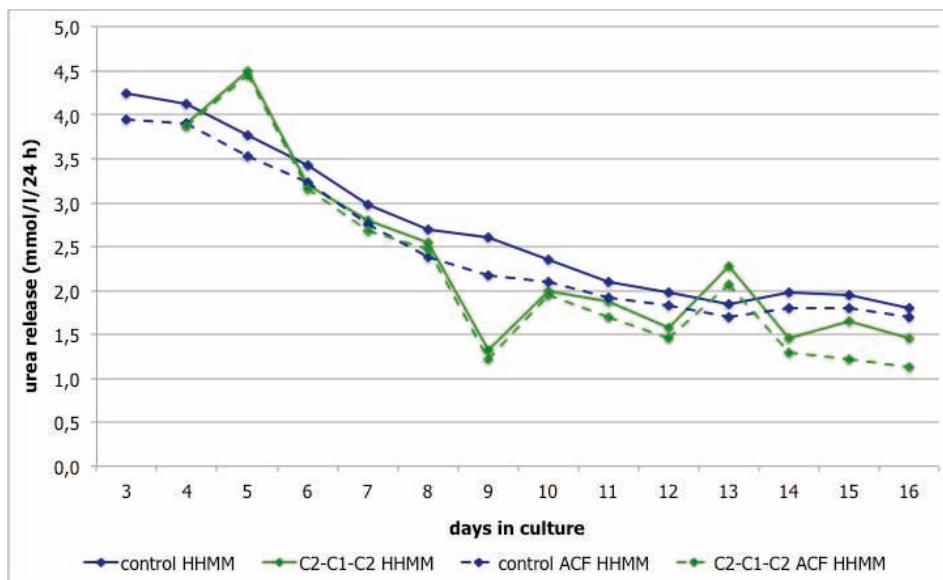


Fig. 2b: Comparison of urea release in human hepatocytes after alternate treatment for 24 h each with compound 2 (C2, day 4), compound 1 (C1, day 8) and compound 2 (day 12) cultured in HHMM or in ACF-HHMM.

### Related Products

ACF-HM-500	Animal component free Human Hepatocyte Maintenance Medium, short term
HPM-500	Hepatocyte Plating Medium
CCP-xx	Collagen Coated Cell Culture Plates (6-, 12-, 24- and 96-well)
HHS-01	Human Hepatocytes in Suspension
HHP-xx	Human Hepatocytes on Collagen Coated Plates (6-, 12-, 24- and 96-well)

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