



Glomerular Filtration Rate (Inulin Clearance) Renal Blood Flow (PAH Clearance)

Scope of application

The most sensitive method to measure renal function is glomerular filtration rate (GFR) measurement by inulin infusion. For detection of renal vasoconstriction renal blood flow (RBF) can be measured simultaneously by PAH clearance.

Method

Measurement of GFR (inulin clearance) and RBF (PAH clearance) will be performed in fully anesthetized mice via intravenous infusion of inulin/PAH through the tail vein after a catheter is placed into the bladder. After one hour equilibration period, urine is collected for 90 min and blood is drawn in the beginning and at the end of the infusion. Infusion solutions for the measurement of the GFR and RBF are 15% inulin, 3,75% PAH and 1% bovine albumin in 0.9% saline at a rate of 5 μ l/min per 100 g body weight. Inulin concentrations in urine and plasma aliquots are obtained using the standard colorimetric methods.