

In Vivo Pharmacokinetics - Urinary and Faecal Excretion

Purpose

In addition to the measurement of plasma or serum drug concentrations for pharmacokinetic evaluation, the elimination pathways via urine and faeces are monitored using metabolic cages. Using this approach mass balance studies can be performed. In addition this experimental set up is a valuable *in vivo* tool for specific therapeutic indications e.g. anti-infective drug candidates targeting the urogenital tract.

Our test model

During the study, rodents are housed individually in metabolic cages having free access to water and food.

Typically within 24 hours 8-10 blood samples (serial bleeding) and 4-6 urine and faeces samples are taken. After each urine sampling, the collection chambers are rinsed with an appropriate washing solvent to recover adhering material.

Drug amount in the urine and faeces samples are determined by LC-MS/MS.

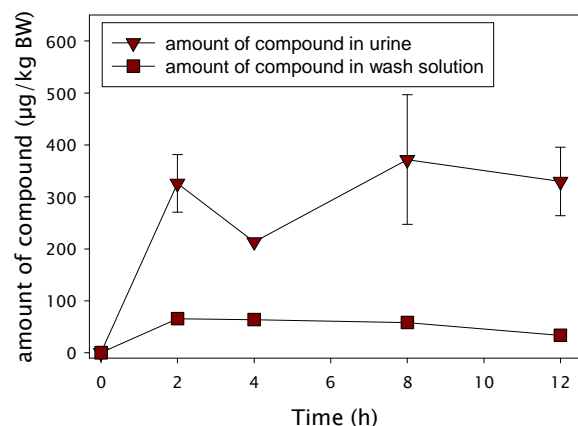


Figure 1: Compound concentration in urine and wash solution

Example

The example (**Figure 1**) presents model compound concentrations in the urine and washing solutions collected at several time points.

The total amount of renally excreted unmodified compound during this time period from two different doses is shown in **Figure 2**.

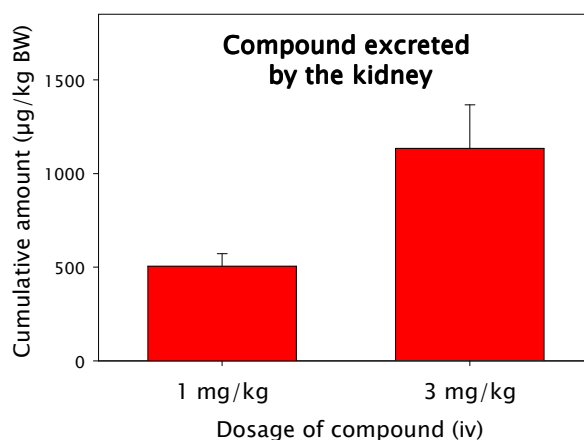


Figure 2: Total amount of renally excreted drug.

Please don't hesitate to contact us for a customized quotation

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