REFERENCE VALUES IN WHOLE BLOOD OF SJL/J MICE USING NAA

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One of the most used animals in biological field for experimentation is the mouse. Particularly, the SJL/J mouse strain has been widely used as a model for different human diseases and for experimental research, so the determination of metal concentrations of clinical relevancy in whole blood may help to evaluate and compare the advantages of different treatment schedules before tested in human beings. Considering that this strain is susceptible to induced autoimmune diseases such as experimental autoimmune encephalitis, inflammatory muscle disease and also presents a progressive muscular dystrophy, in this study the Ca, Cl, K and Na concentrations were determined in whole blood samples using Neutron Activation Analysis technique. To perform this investigation the whole blood samples of two-month-old adult females (n = 7) and males (n = 4) that was originally obtained from the Jackson Laboratory (Maine, USA) and further inbred at IPEN – CNEN/SP (São Paulo, Brazil) were used. The samples were irradiated in the IEA R1 nuclear reactor, for few minutes permitting the simultaneous activation of the selected elements resulting in reference values for Ca, Cl, K and Na in whole blood. These data contribute for applications in veterinary medicine related to biochemistry analyses of blood. Moreover, the correlation with human blood estimation allows the choice of a better mouse strain as reference and for experimental model.