Micro-CT Mouse Phantom

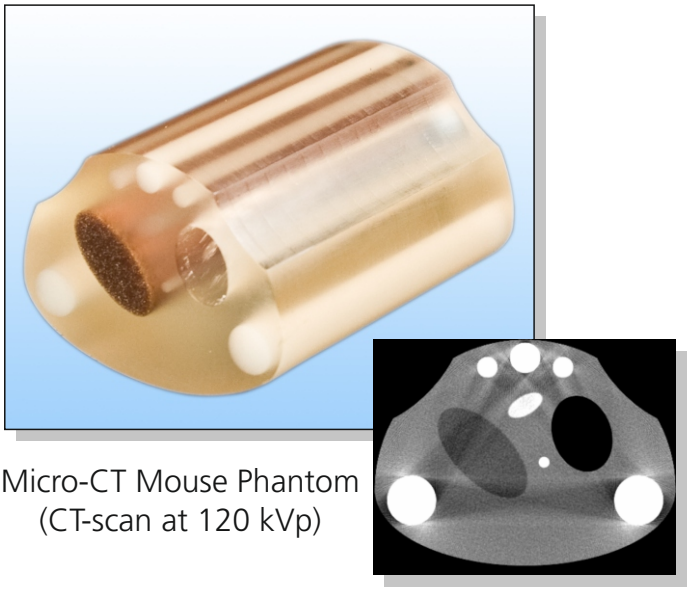
The QRM-MicroCT-Mouse-Phantom mimics the body of a small mouse and was specially designed to perform image quality test at small animal micro-CT systems.

The mouse phantom was designed for micro-CT purposes.
The phantom body consists of water equivalent plastic in the energy range of 80 - 140 kVp.
The two high contrast inserts are made up of different concentrations of iodine (2 and 6 g).
The two small bones consists of hydroxiapatite 100 mg/ccm and the three large bones of hydroxiapatite 200 mg/ccm.

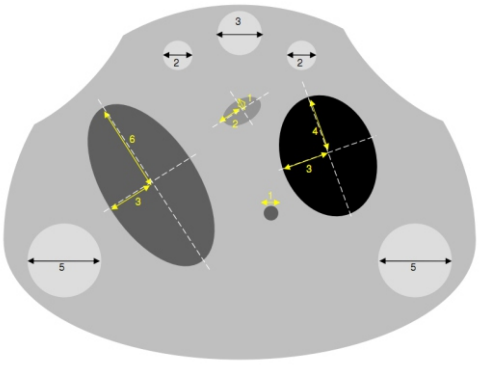
Specifications

General dimensions
Width .....32 mm
Height ..... 24 mm
Length ..... 40 mm
Weight ..... 35 g
Body ..... soft tissue equivalent
Inserts
Bone ..... 2 x 40 mm; 100 mg HA / ccm
3 x 40 mm; 200 mg HA / ccm
5 x 40 mm; 200 mg HA / ccm
Iodine ..... approx 100/400 HU / 120 kV
liver (soft tissue) ..... 3 x 6 x 40 mm
lung (air) ..... 3 x 4 x 40 mm

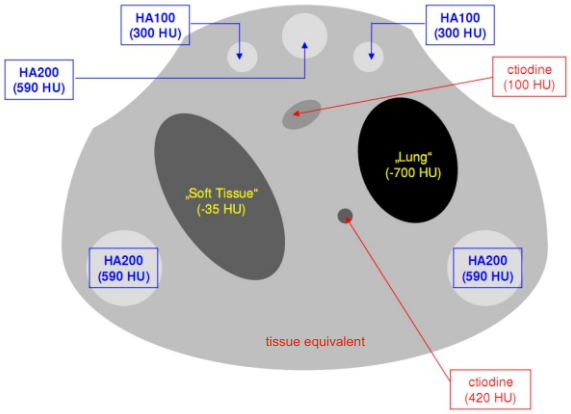
The Mouse Phantom was designed in cooperation with the Institute of Medical Physics (IMP) in Erlangen / Germany for a specific research project. Some of the pictures are by courtesy of the IMP.



Micro-CT Mouse Phantom
(CT-scan at 120 kVp)



Measures of the mouse phantom inserts
(in mm)



Content of the mouse phantom inserts
(values valid for U_0=120kVp)

Reference
P. Stenner, T. Berkus, M. Kachelrieß: Empirical dual energy calibration (EDEC) for cone-beam computed tomography. Medical Physics 2007, 34(9), 3630-3641.

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