

VisualSonics Vevo 3100

- Used for echocardiographic assessment of cardiac function and geometry in small laboratory animals, especially mice and small rats, including animals in the early postnatal phase
- Non-invasive measurements allowing the longitudinal studies
- The Vevo 3100 has been developed specifically for the examination of small laboratory animals (in contrast to the clinical machine GE VIVID 7), and its equipment and technical parameters correspond to this (high time and spatial resolution, as well as the facilities for precise animal and probe handling)

Main technical parameters and parts:

- Base unit with technical means and software equipment for 2D-Mode (two-dimensional) measurement of heart geometry and function
- M-Mode for displaying the movement of the examined structures over time
- PW Doppler Mode for pulsed Doppler measurement of blood flow velocity
- TD-Mode (Tissue Doppler) for Doppler measurement of tissue velocity at selected locations
- Colour Doppler Mode for colour visualization of flow velocity and direction
- 3D-Mode for three-dimensional visualization and means for other advanced modes
- Ultrasound probes MX201 18 MHz (10-21 MHz, max. resolution 100 μm , max. imaging depth 40 mm), MX250 24 MHz (14-28 MHz, resolution 75 μm , depth 30 mm), MX400 38 MHz (21-44 MHz, resolution 50 μm , depth 20 mm) and MX550D 50 MHz (26-52 MHz, resolution 40 μm , depth 15 mm)
- Vevo Imaging apparatus for fixation and manipulation with animals and probes
- Heated examination tables for mouse and rat with monitoring of basic physiological functions (rectal temperature, limb ECG, heart and respiratory rates)
- Inhalation anaesthetic unit for isoflurane anaesthesia, including an anaesthetic chamber
- VevoLab software for subsequent analysis of stored records