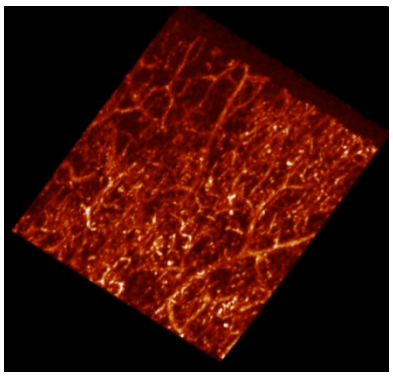
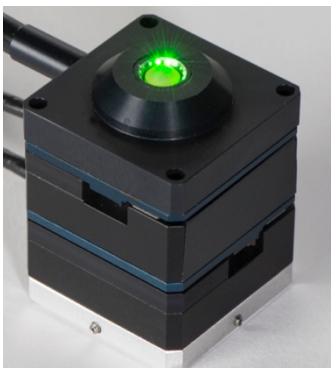
easyPAM – Photoacoustic Microscopy

Imaging of functional and molecular features in deep tissue

The easyPAM system transforms your easySAM Acoustic Microscope into a state of the art photoacoustic imaging system for investigating deep tissues with high resolution. Photoacoustic imaging of optical absorbers, endogenous chromophores and exogenous stains improves the imaging depth without reducing image resolution due to optical scattering. Seamless integration with the easySAM microscope systems insures image quality, user friendliness and value for cost. Adding the easyPAM system consisting of the laser excitation module and the photoacoustic easyPAM lens to your easySAM Microscope gives you access to unique photoacoustic data while perfoming your standard microscopic investigations.





Applications

Photoacoustic imaging provides insights into the structure, physiology and function of complex tissue and 3D cellular models. The easyPAM system is ideally suited for a broad range of applications such as

- tissue engineering
- investigation of living multi-cellular spheroids and 3D tissue models
- Investigation of cell microenvironment and stem cell niches
- vascularized grafts
- enervated grafts
- tumor necrosis models
- characterization of biopsies
- investigation of tissue sections

easyPAM Excitation Module

Designed as an add-on to the easySAM Acoustic Microscopes, the easyPAM optical excitation module offers seamlessly integrated optimized photoacoustic excitation in the visible and near infrared. High power pulses with nanosecond duration and kHz repetition rates generate the optimal signal for achieving high contrast and high resolution at excellent imaging speed. As the easySAM itself, the easyPAM eliminates the complexity of photoacoustic imaging without compromising the performance. The easyPAM module is the optimal light source for investigating your valuable samples in life science applications.

easyPAM Lenses

High sensitivity and exact focussing combined with an optimized multiwavelength illumination function are the characteristics of the easyPAM photoacoustic lenses. Based on its proprietary high frequency acoustic imaging transducer technology kibero's engineers have developed this new line of transducers for optimal performance in 100 MHz, 200 MHz and 400 MHz photo-acoustic imaging, offering imaging resolution better than 5 µm with unbeaten sensitivity. The transducers are designed for compatibility with the easySAM microscope series supporting the easy integration into most standard light microscopy platforms.

kibero GmbH, Bismarckstr. 56, 66121 Saarbrücken, Germany
Contact: info@kibero.com, Tel.: +49 (0) 681 9407 4620, Fax: +49 (0) 681 9407 4626