

MHM – Q-PHASE

TESCAN proudly introduces the Q-PHASE, a multimodal holographic microscope (MHM). With this instrument TESCAN expands into the field of advanced light microscopy. The Q-PHASE is a unique instrument for quantitative phase imaging (QPI) based on patented technology of Coherence-controlled holographic microscopy. This technology uses incoherent light sources (halogen lamp, LED) providing QPI with the highest quality, without any compromises and it is the only QPI technique enabling imaging of samples in scattering media. The Q-PHASE is purposely designed to observe living cells in vitro. It is based on a robust inverted transmission microscope platform. The whole system is situated in a microscope incubator to ensure proper conditions for live cell imaging. The full motorization fulfills even the highest demands regarding experiment automation. The Q-PHASE control software is an integral part of the microscope and provides all the necessary functionality for experimental measurements, image processing and analysis. Furthermore, this system includes multiple imaging modes with fully integrated **Fluorescence Module, simulated DIC and bright-field imaging options**. All these features make of Q-PHASE a valuable research tool for biological and biotechnical applications such as testing reactions of cells to a specific treatment - even with scattering **non-transparent substances**, monitoring cell's life cycle including mitosis, distinguishing between different forms of cell deaths, analyzing cell growth, motility or morphology changes, imaging cells in extracellular matrices.