430

Simplicity that defies complexity - the MACSima™ Platform for ultrahigh-content imaging

Dr. Julian Lehmann

Miltenyi Biotec, Bergisch Gladbach, Germany

Abstract

The MACSima™ Imaging Platform is the only complete solution for ultrahigh-content imaging of hundreds of markers, allowing you to understand the tumor microenvironment in its entirety. This platform comprises a fully automated instrument, a large portfolio of validated antibodies, optimized sample carriers, and an easy-to-use yet powerful analysis software. At the core of the MACSima Imaging Platform is the MACSima Imaging System, a fully automated instrument based on fluorescence microscopy. Excellent optics, a state-of-the-art sCMOS camera, accurate liquid handling, and high computer capacity are the hallmarks of the MACSima Imaging System. All system components are perfectly geared to each other, allowing truly automated and conclusive ultrahigh-content imaging based on MICS (MACSima Imaging Cyclic Staining) technology. This groundbreaking technology enables the simultaneous analysis of hundreds of markers on a single sample based on fluorescence microscopy. It uses the principle of iterative immunofluorescence staining with different fluorochrome-conjugated antibodies to acquire microscopy data for a multitude of parameters without harming the sample. The broad spectrum of recombinant ready-to-use antibodies, specifically validated for MICS, abolishes the typical hurdles of expensive and long validation processes. Convenient and easy to use, the specially designed sample carriers allow you to examine any kind of fixed sample, from tissue to single cells. Finally, the powerful and intuitive Qi Tissue Image Analysis Software makes for a truly game-changing imaging experience, closing the circle on all you need to achieve ultrahigh-content imaging.