

Leica CW4000 CytoFISH

Leica CW4000 CytoFISH provides fluorescence image acquisition and advanced analysis tools for Cytogeneticists. It includes the ability to count FISH signals in Interphase cells and to perform a ratio of the count of the number of two different colour FISH spots - as used in the study of the HER-2/*neu* gene in patients with Breast cancer.

Main features

- Acquisition facilities for up to 16 image planes, allowing the capture of standard FISH, MFISH and CGH images.
- The autoexposure facility can be used to provides a 'one touch' fully automatic capture sequence.
- Compatibility with Leica Digital FireWire Cameras (DFC). Either cooled or non-cooled cameras can be used, producing high resolution FISH images.
- Leica DFC cameras can be used in either 8 bit or 16 bit mode for a single image plane.
- Either capture a region of interest in the camera field of view, or capture using the entire CCD array for the highest spatial resolution. Binning can optionally be used to increase sensitivity.
- There is no need to threshold images to generate composite images - this removes the possibility of excluding faint 'real' signals from the image.
- Full compatibility with karyotyping applications to allow flexible karyotyping of 2, 3 or multi-colour images.
- Capture of colour brightfield immuno stained images.

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FISH - Fluorescence
In-Situ Hybridisation

Leica

MICROSYSTEMS

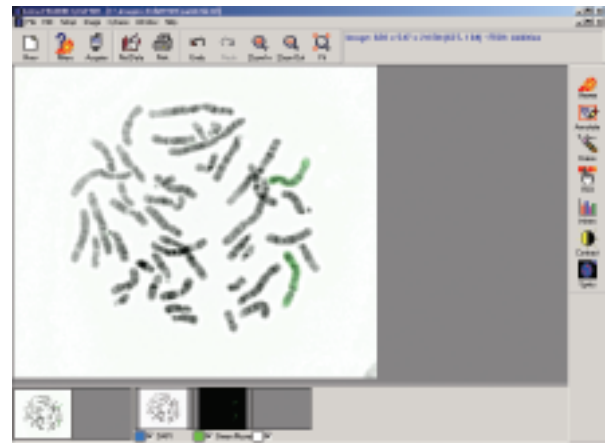
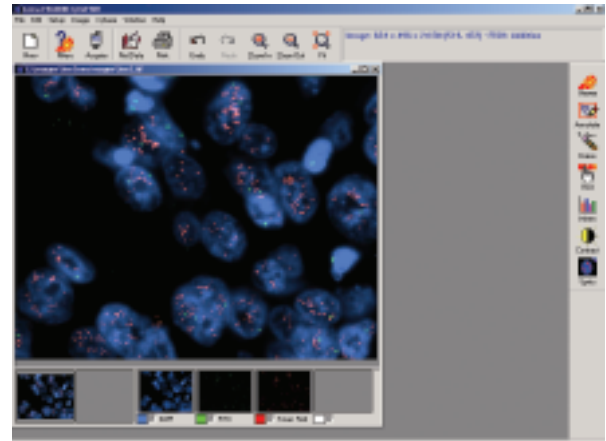
Compatible Cameras

Using Leica CW4000 CytoFISH with Video CCD cameras provides good quality Brightfield and Fluorescence images. Spatial resolution is approximately 768×575 pixels, and allows camera exposure (integration) times of approximately 5 seconds. These cameras are suitable for a wide range of Cytogenetic investigations, and are widely used.

Leica CW4000 can also be used with the latest Leica Digital FireWire Cameras. Cameras that are particularly suitable for use with CW4000 include the Leica DFC300 FX and DFC350FX. The FireWire camera range offers the best possible resolution images and with Leica CW4000 software you can take advantage of the full CCD chip resolution. You can also capture combined Brightfield and Fluorescence images to view FISH images (Chromogenic *In-Situ* Hybridisation) and combined Immuno staining with FISH experiments. This is simplified with the new Leica Digital Microscopes.

Leica CW4000 CytoFISH offers a range of easy to use tools to adjust the contrast, colour and definition of objects in the acquired images – these can be applied to either the full image or one or more areas of interest.

The Leica Microsystems combination of the latest hardware innovations from Microscopy and Camera development along with advanced software, offers complete solutions for all Cytogenetic Applications. Leica CW4000 is a modular system and includes a full range of Karyotyping, FISH, CGH and MFISH options, which offer an outstanding system with accurate, detailed and high quality images and data. Leica CW4000 is fully compatible with either the new Leica Digital Microscopes (DM4000B, DM5000 and DM6000) or with manual microscopes either from Leica or from other suppliers.



Front image supplied by T van der Aa,
Stichting PAMM, 5623EJ Eindhoven, Netherlands



www.leica-microsystems.com

Leica Microsystems Imaging Solutions Ltd
Tel: +44 1223 411101 Fax: +44 1223 412526
Email: imaging.marketing@leica-microsystems.com

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