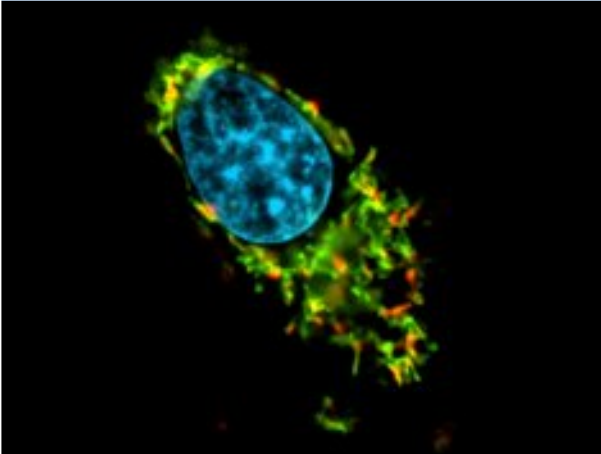# Tips & Tricks

Imaging Plate FC
(Fluorcarbon)

The properties of the fluorcarbon film bottom enable beside imaging and physiological cell growths some special applications. Among these enabling features are:

• **Transparency for UV-A and UV-B light**

• **High gas transfer**

• **The film bottom can be cutted and cells transferred for other examination procedures**

• **The thin film bottom and it's refractive index enable the use of water dipping objectives**

UV-A and UV-B light transmission
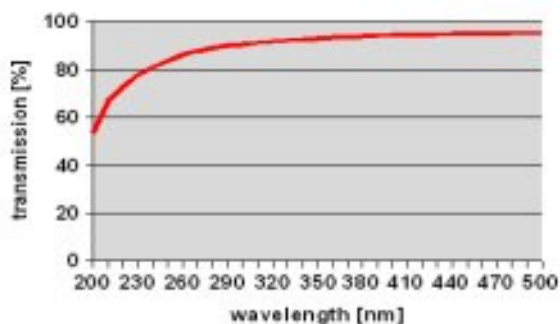
The film bottom of the plates is transparent for UV-A and UV-B light.

Experimental investigation of cell responses to short wavelength light is possible by irradiating the cells through the plate bottom. This enables equal and well controlled experimental conditions to study photo effects.

Gas transfer through the plate bottom

The thin fluorcarbon film bottom enables high gas transfer rates between the cellular microenvironment and the surrounding incubator. Therefore unique control over gas partial pressure in the cellular microenvironment is possible. Metabolic highly active cells can get the required oxygen without limitation. A rapid and homogenous adaptation of gas partial pressure for hypoxia experiments in prepared incubators is also enabled.

Cutting the film bottom

Especially the 24 well version is suited to get access to the cultivated cell layers. The film bottom can be easily cutted with a scalpel and transferred for further applications, e.g ultrathin and semithin cross sections for TEM or light microscopy. Another frequent application is the transfer to a glass microscope slide. Let the film flatten on the slide by aid of a droplet of ethanol. Afterwards it can be covered by conventional techniques with a cover glass (for upright microscopy or archiving of the sample).

Water dipping objectives

Perfect resolution and quantum yield can be obtained if water dipping objectives with high numerical apertures are used for inverse microscopy. With no other product combination you get as close to the cells with equivalent quantum yield.