

The **Nikon Eclipse Ti** is an inverted motorised microscope with digital system for acquisition or live cell imaging, for the analysis of samples using DIC (differential interference contrast), Phase Contrast and fluorescence; indicated for time-lapse observation and registration on live samples.

✓ completely **motorised** to perform all functions in automated mode (z-axis, xy stage movement, microscope camera and lamp functions)

✓ integrated **Perfect Focus System (PFS)**: corrects focus drifts during long-term observations and when reagents are added. Even with high magnification and high NA objectives images are always in sharp focus.

✓ **Acquisition software (Nis-Elements AR) for time-lapse**: allows personalised experimental settings, eg acquisition intervals, choice of observation fields (multipoint acquisition), fluorescent channels, time exposure, z-axis

✓ **Okolab** water jacket CO₂ stage incubator designed to maintain all the required experimental conditions for cell cultures right on the microscope stage, thus allowing prolonged observations of events (up to 5-6 days); control software and reference well for continuous check and update of temperature conditions, ensuring a stability of $\pm 0,1$ °C.

Equipped with:

Intensilight fluorescence lamp:

- pre-centered fiber illumination system (never needs alignment)
- stable light intensity
- long life lamp (typical lamp lifetime is 2000 hours)
- greatly increased brightness for green spectrum (compared to conventional mercury lamps)
- light intensity control: six discrete levels of light intensity

Objectives:

- Plan Fuor 40x (N.A. 0,60) DIC
- Plan Apo 60x (oil, N.A. 1,4) DIC
- Plan Fuor 60x (N.A. 0,70) Phase Contrast (Long distance)

- Available on demand: Plan 10x, N.A. 0.25, Phase Contrast; Plan Fuor 40x (N.A. 0,75)

Filter cubes:

- FITC (EX 480/30, BS 505, EM 535/40) for FITC, GFP, EGFP, YFP;
- TRITC (EX 535/50, BS 575, EM 590LP) for all red/orange fluorophores.

- Available on demand: DAPI filter

Digital camera DS-Qi1:

- high-sensitivity cooled monochrome camera
- quantitative camera for fluorescence live cell imaging
- Technical data: 1280 x 1024 pixels; 6,45 μm x 6,45 μm pixel size; Electronic shutter; 12-bit.