

Olympus / Abbelight TIRF/SMLM system

Technical Specifications

- Olympus IX83 inverted microscope with TruFocus drift compensation, piezo motorised stage, motorised Z drive and light path changer.
- Abbelight SaFe360 TIRF/SMLM illuminator for TIRF and STORM/PALM/PAINT single molecule super-resolution.
- 4 diode lasers – 405nm (50mW), 488 nm (100 mW), 561nm (150mW) and 638nm (500mW).
- 2 Hamamatsu Fusion sCMOS cameras
- Blacked-out environmental chamber (PECON) with temperature control and CO2 enrichment
- Abbelight NEO software for acquisition, processing and analysis of TIRF and SMLM images

Filters for visual inspection

Example fluorophore	Laser Excitation	Dichroic mirror	Emission filter
DAPI	405	Quad 405/488/561/638	
GFP	488	Quad 405/488/561/638	BP 525
CY3	561	Quad 405/488/561/638	LP 568
CY5	638	Quad 405/488/561/638	LP 568

Lenses

Lens	Numerical aperture	Dry/ imm	Features	Working distance (mm)
10x	0.4	Dry		3.1
100x	1.5	oil	Correction collar	0.12