Confocal LSB - SP5 system (August 2020)

Technical Specifications

- Leica SP5-AOBS confocal laser scanning microscope attached to a Leica DM I6000 inverted epifluorescence microscope.
- Spectrophometers allow customised detection of emitted light, spectral scanning etc.
- Equipped with 100 mW Ar laser (458, 476, 488, 496, 514 nm lines), 10 mW solid state yellow laser (561 nm), 10 mW Red He/Ne (633 nm) and 50 mW 405 nm diode laser.
- AOTFs for all laser lines allow rapid attenuation, ROI scanning and localised photo-bleaching.
- AOBS (Acousto-Optical Beam Splitter) automatically adjusts to selectively reflect each excitation line and allows optimisation of detection close to (and overlapping) excitation lines.
- Suitable for a wide range of blue, green, red and far-red fluorophores.
- Three detection channels for fluorescence/reflectance – 1 HyD GaAsP (enhanced sensitivity) and 2 PMTs.
- Transmitted light detector for brightfield and DIC (some lenses).

Filters for visual inspection

	Excitation range	**Fluorophore (examples)**	**Excitation filter**	**Dichroic mirror**	**Emission filter**
A	UV	DAPI Hoescht	BP 340-380	RKP 400	LP 425
I3	Blue	FITC GFP	BP 450-490	RKP 510	LP 515
N2.1	Green	Rhodamine TRITC	BP 515-560	RKP 580	LP 590

Lenses

Lens	**Dry/Oil**	**DIC**	**Working distance (mm)**	**Numerical aperture**	**Features**	**Serial number**	**Image size at zoom 1 in microns**
10x HC PL Apo CS	Dry	No	2.2	0.4		506285	1550
20x HC PL Apo CS	dry	No	0.59	0.7		506513	775
40x HCX PL APO CS	Oil	Yes	0.24	1.3		506358	387.5
63x HCX PL APO lambda blue	Oil	Yes	0.1	1.4	Iris diaphragm	506192	246
100x HCX PL APO	Oil	Yes	0.09	1.4		506210	155
63x HCX PL APO	Glycerol	Yes	0.28	1.3	Coverglass correction collar	506194	246

Spare lens

Lens	**Dry/Oil**	**DIC**	**Working distance (mm)**	**Numerical aperture**	**Features**	**Serial number**	**Image size at zoom 1 in microns**
10x HC PL Apo CS	Dry	No	11	0.3		506507	1550