

Nikon A1R (Biosciences)

INSTRUMENT SPECIFICATION SHEET



Location	Biosciences 4 room 332						
Stand	Inverted Eclipse Ti-E						
Illumination	Transmitted				Fluorescence		
	12V /100W Halogen lamp				Intensilight C-HGFI (130W Metal halide)		
Filters	Name	Excitation		Dichroic	Emission		
	DAPI	340-380		400	435-485	MBE41305	
	FITC	465-495		505	515-555	MBE44725	
	TRITC	528-553		565	590-650	MBE45605	
Lasers	Type		Wavelength		Maximum output		
	LD		405		15 mW		
	LD		488		15 mW		
	DPSS		561		8 mW		
	LD		640		15 mW		
Stage control	Motorized XY stage , Piezo stage (100 micron travel)						
Objectives Specification	Magnification	Type	NA	Working distance	Coverslip Thickness		Resolution at 550nm (Glycerol mounted)
10x PL APO Lambda MRD00105	10x	Air	0.45	4000	170	DIC N1	Lateral: 489 Axial: 1164
20x PL APO MRD00205	20x	Air	0.75	1000	170	DIC N2	Lateral: 293 Axial: 655
40x PL APO MRD 00405	40x	Air	0.95	160-250	Correction collar: 0.11-0.23	DIC	Lateral: 232 Axial:551
40x PL FLUO MRH01401	40x	Oil	1.3	200	170	DIC N2	Lateral: 169 Axial: 403
CFI APO Lambda S MRD71600	60x	Oil	1.4	140	170	DIC N2	Lateral: 157 Axial: 374
PLAN APO * IR 60X MRY10060	60X	WI	1.27	130	170	P2 DIC	Lateral:173 Axial:412
	*Not currently installed						
Detectors	#	Type		Details			
DU4	2	PMT					
	2	GaAsP PMT					
DUVB	2	GaAsP PMT		Dichroic to be installed for simultaneous imaging Spectrum scan mode: 400-720 narrowest 10nm			

			Variable band mode: user-defined wavelength bands
Diascopic detector unit	1	TPMT	Transmitted light detector
Software	NIS Elements AR 4.6		
Holder	Slides, multiwell and petri dishes		
Applications	Fixed sample and live samples		
File Saving	External USB		
Extra features	Resonant scanner , Perfect focus system, motorized stage, Enclosure for live imaging, CO ₂ and temperature controller, Deconvolution running on GPU, JOBS conditional acquisition module, General Analysis module, FRET analysis module		