

Which confocal should I use?

Main Features of the 3 Confocals

parameter	Olympus IX81 with DSU	Leica SP5 II, inverted	Leica SP5 II, upright
general operation	software driven, spinning disk with slit formation	software driven, single variable pinhole	
available excitation	4 bands: 387, 485, 560, 650 nm from a Xenon plasma lamp	7 laser lines: 405, 458, 476, 488, 514, 561, 633 nm	
excitation power control	continuous		
microscope stand	inverted, fully motorized	inverted, fully motorized	upright, fully motorized
DIC	excellent	excellent	none
max. image size (pixel)	512×512	8192×8192	
max. frame rate (fps, pixel)	~30, 512×512	5 (28 with resonant scanner), 512×512	5, 512×512
detector	EM-CCD	5 PMT	3 PMT
max # of simultaneous scans	1 confocal or transmitted light	4 spectral confocal + 1 transmitted light	3 spectral confocal
max # of sequential scans	5	16	
live imaging and time series	good	good	
overall image quality	good	excellent	
confocality	good	excellent	
illumination e.g., evenness, centrality	good	excellent	
detector sensitivity	excellant	good	
channel co-registration	good	excellent	to be tested