

Resource Summary Report

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Nikon: A1R Confocal Laser Scanning Microscope

RRID:SCR_020317

Type: Tool

Proper Citation

Nikon: A1R Confocal Laser Scanning Microscope (RRID:SCR_020317)

Resource Information

URL: <https://www.microscope.healthcare.nikon.com/about/news/nikon-instruments-a1-confocal-laser-microscope-series-with-nis-elements-c-software-delivers-fully-integrated-comprehensive-confocal-imaging-capabilities>

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Description: A1R model incorporates a hybrid scanner system utilizing a high speed resonant galvanometer capable of acquisitions up to 240 frames per second. Both scanners can be used simultaneously for experiments requiring acquisition and photoactivation by concurrently scanning the specimen. This supports advanced research methods using photoactivation fluorescence proteins and facilitates high-speed, live-cell work with a huge array of new imaging strategies. A spectral imaging detector further enables the A1 and A1R models to obtain up to 32 discrete spectral bandwidths of data in one acquisition, with spectral unmixing capabilities. The total system is controlled through NIS-Elements C applications software, which also enables full control of the Nikon Ti-E research inverted microscope equipped with Nikon's Focus System (PFS), widefield CCD cameras and an array of hardware devices.

Resource Type: instrument resource

Keywords: Nikon, Confocal Laser Scanning Microscope, Instrument, Equipment, USEdit

Availability: Commercially available

Specification URL: https://raw.githubusercontent.com/SciCrunch/RRID-Instruments/refs/heads/main/PDF/SCR_020317.pdf

Resource Name: Nikon: A1R Confocal Laser Scanning Microscope

Resource ID: SCR_020317

Alternate IDs: Model_Number_A1R

Record Creation Time: 20220129T080349+0000

Record Last Update: 20260801T190644+0000

Ratings and Alerts

No rating or validation information has been found for Nikon: A1R Confocal Laser Scanning Microscope.

No alerts have been found for Nikon: A1R Confocal Laser Scanning Microscope.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 45 mentions in open access literature.

Listed below are recent publications. The full list is available at [RRID](#).

Torii T, et al. (2026) Loss of p53 Provokes NF- κ B-Dependent Disruption of Nucleolar Cap and Nucleoplasmic Redistribution of Fibrillarin During Nucleolar Stress. *Biomolecules*, 16(2).

Colah A, et al. (2026) Profiling crystal engineered ligands for targeting treatment resistant androgen receptors. *bioRxiv : the preprint server for biology*.

Davis MN, et al. (2026) Parvalbumin Neuron-Targeted Loss of Alzheimer's Disease Risk Gene BIN1 Is Insufficient to Drive Cognitive or Network Excitability Changes. *eNeuro*, 13(3).

Chehade HD, et al. (2026) Emergence of Task-Related Motor Cortical Dysfunction in Mice with Progressive Parkinsonism. *bioRxiv : the preprint server for biology*.

Contreras J, et al. (2026) Scn2a, encoding Na V 1.2 channel, contributes to tonotopic maturation of spike kinetics in developing mouse MNTB. *Frontiers in cellular neuroscience*, 20, 1819425.

Tai W, et al. (2026) In vivo reprogramming of NG2 glia improves bladder function after spinal cord injury. *iScience*, 29(3), 114850.

Bellofatto K, et al. (2026) Implantable vascularized endocrine constructs for clinically scalable insulin delivery. *Trends in biotechnology*.

Martinez RC, et al. (2026) Motor Neuron Size-Dependent Differences in mRNA Expression of Tropomyosin-Related Kinase Receptor B in Adult Rats. *Journal of neurochemistry*, 170(2), e70381.

Fogarty MJ, et al. (2026) Inflammaging-associated mitochondrial degeneration occurs in hypoglossal motor neurons prior to tongue muscle. *GeroScience*.

Cheung SW, et al. (2026) Size-dependent alterations in phrenic motor neuron perineuronal nets following cervical spinal hemisection. *Journal of neurophysiology*, 136(1), 180.

Bauerdick A, et al. (2026) MorphoMapping identifies redox-dependent control of NETotic states in primed neutrophils. *Journal of immunology (Baltimore, Md. : 1950)*, 215(4).

Mahadev Bhat S, et al. (2026) Fluorescence-based quantification of mitochondrial damage in human airway smooth muscle cells. *American journal of physiology. Cell physiology*, 330(5), C1336.

Kuno M, et al. (2026) PTP1B deficiency in the reward system suppressed the rewarding value of a high-fat diet. *Brain research bulletin*, 244, 112042.

Tinsley H, et al. (2025) Interleukin-1 β Stimulates Matrix Metalloproteinase 10 Secretion: A Possible Mechanism in Trophoblast-Dependent Spiral Artery Remodeling. *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*, 39(9), e70597.

Ning G, et al. (2025) BCAS2 promotes primitive hematopoiesis by sequestering β -catenin within the nucleus. *eLife*, 13.

Metri MN, et al. (2025) Protocol for autofluorescence removal in microglia by photobleaching in free-floating immunofluorescent staining of mouse brain tissue. *STAR protocols*, 6(4), 104199.

Bergheim BG, et al. (2025) Molecular dynamics of the matrisome across sea anemone life history. *eLife*, 14.

McCoy C, et al. (2025) Focal postnatal deletion of Tsc2 causes epilepsy. *Frontiers in molecular neuroscience*, 18, 1686023.

Chen L, et al. (2025) Motor cortical neuronal hyperexcitability associated with α -synuclein aggregation. *NPJ Parkinson's disease*, 11(1), 18.

Ikefuama EC, et al. (2025) Presymptomatic targeted circuit manipulation for ameliorating Huntington's disease pathogenesis. *iScience*, 28(3), 112022.