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 discreet 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: 20260725T190926+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 32 mentions in open access literature.

Listed below are recent publications. The full list is available at kravitz2 .

Tinsley H, et al. (2025) Interleukin-1? 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.

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

Itaborahy MF, et al. (2025) Chemotherapy-induced neuropathy in monomethyl Auristatin E treatment: prevention by lithium. British journal of cancer, 133(5), 604.

Stevens NA, et al. (2025) Diversity of axon initial segment geometry in the mouse hippocampus and its predicted influence on neuronal excitability. Cerebral cortex (New York, N.Y. : 1991), 35(12).

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

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

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.

Mahadev Bhat S, et al. (2025) TNF?-mediated subcellular heterogeneity of succinate dehydrogenase activity in human airway smooth muscle cells. American journal of physiology. Lung cellular and molecular physiology, 328(6), L792.

Chustecki JM, et al. (2025) (ID-ICPMB05) Running on Empty: Mitochondria Without DNA Exhibit Differential Motility and Connectivity. Physiologia plantarum, 177(4), e70404.

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

Zhang W, et al. (2025) RACK1 attenuates pancreatic tumorigenesis by suppressing acinar-to-ductal metaplasia through inflammatory signaling modulation. Cellular oncology (Dordrecht, Netherlands).

Chen L, et al. (2024) Motor Cortical Neuronal Hyperexcitability Associated with ?-Synuclein Aggregation. Research square.

Cherian S, et al. (2024) Loss of Midbrain Dopamine Neurons Does Not Alter GABAergic Inhibition Mediated by Parvalbumin-Expressing Interneurons in Mouse Primary Motor Cortex. eNeuro, 11(5).

Chen L, et al. (2024) Motor Cortical Neuronal Hyperexcitability Associated with ?-Synuclein Aggregation. bioRxiv : the preprint server for biology.

Al Khazal FJ, et al. (2024) Similar deficiencies, different outcomes: succinate dehydrogenase loss in adrenal medulla vs. fibroblast cell culture models of paraganglioma. Cancer & metabolism, 12(1), 39.

Louder MIM, et al. (2024) Transient sensorimotor projections in the developmental song learning period. Cell reports, 43(5), 114196.

En A, et al. (2024) Pervasive nuclear envelope ruptures precede ECM signaling and disease onset without activating cGAS-STING in Lamin-cardiomyopathy mice. Cell reports, 43(6), 114284.

Drake AW, et al. (2024) Somatostatin interneuron fate-mapping and structure in a Pten knockout model of epilepsy. Frontiers in cellular neuroscience, 18, 1474613.

Mahadev Bhat S, et al. (2024) Heterogeneous distribution of mitochondria and succinate dehydrogenase activity in human airway smooth muscle cells. FASEB bioAdvances, 6(6), 159.