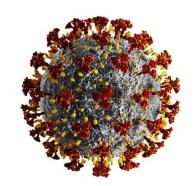


# MACHEREY-NAGEL's latest references for Covid-19 and viral nucleic acid isolation



To help you fighting the current Covid-19 pandemic, we summarized some recent articles related to viral RNA/DNA Isolation

#### **SARS-CoV-2** related publications

Featured Product	Application	Author	Article	Year	Journal
	SARS-CoV-2 RNA isolation	Hoffmann et al.	SARS-CoV-2 Cell Entry Depends on ACE2 andTMPRSS2 and Is Blocked by a Clinically ProvenProtease Inhibitor	<sup>2</sup> 2020	Cell
	SARS-CoV-2 RNA isolation	Cheng et al.	Furin Inhibitors Block SARS-CoV-2 Spike Protein Cleavage to Suppress Virus Production and Cytopathic Effects	2020	CellPress
	SARS-CoV-2 RNA isolation	Klopfenstein et. al.	Features of anosmia in COVID-19	2020	Médecine et Maladies Infectieuses
NucleoSpin <sup>®</sup> RNA Virus Part 1	SARS-CoV-2 RNA isolation	Grillet et al.	Acute Pulmonary Embolism Associated with COVID-19 Pneumonia Detected by Pulmonary CT Angiography	2020	Radiology
raiti	SARS-CoV-2 RNA isolation	Randazzo et al.	SARS-CoV-2 RNA titers in wastewater anticipated COVID-19 occurrence in a low prevalence area	2020	BioRxiv
	SARS-CoV-2-RNA isolation	Toptan et al.	Optimized qRT-PCR approach for the detection of intra- and extracellular SARS-CoV-2 RNAs	2020	BioRxiv
	SARS-CoV-2 RNA isolation	Klopfenstein et. al.	Features of anosmia in COVID-19	2020	Médecine et Maladies Infectieuses
	SARS-CoV-2 RNA isolation	Grillet et al.	Acute Pulmonary Embolism Associated with COVID-19 Pneumonia Detected by Pulmonary CT Angiography	2020	Radiology



Featured Product	Application	Author	Article	Year	Journal
	SARS-CoV-2 RNA isolation	Randazzo et al.	SARS-CoV-2 RNA in wastewater anticipated COVID-19 occurrence in a low prevalence area	2020	Water Research
	SARS-CoV-2 RNA isolation	Kumar et al.	First proof of the capability of wastewater surveillance for COVID-19 in India through detection of genetic material of SARS-CoV-2	f 2020	Science of the Total Environment
	SARS-CoV-2 RNA isolation	Trottier et al.	Post-lockdown detection of SARS-CoV-2 RNA in the wastewater of Montpellier, France	2020	One Health
	SARS-CoV-2 RNA isolation	Pastorino et al.	Evaluation of Chemical Protocols for Inactivating SARS-CoV-2 Infectious Samples	2020	Viruses
NucleoSpin <sup>®</sup> RNA Virus	SARS-CoV-2 RNA isolation	Moeller et al.	Effect of statins on SARS-CoV-2 infection	2020	medRxiv
Part 2	SARS-CoV-2 RNA isolation	Grenga et al.	Shotgun proteomics analysis of SARS-CoV-2-infected cells and how it can optimize whole viral particle antigen production for vaccines	2020	Emerging Microbes& Infections
	SARS-CoV-2 RNA isolation	Glasgow et al.	Engineered ACE2 receptor traps potently neutralize SARS-CoV-2	2020	BioRxiv
	SARS-CoV-2 RNA isolation	Kaptein et al.	Antiviral treatment of SARS-CoV-2-infected hamsters reveals a weak effect of favipiravir and a complete lack of effect for hydroxychloroquine	2020	BioRxiv
	SARS-CoV-2 RNA isolation	McNamara et al	High-density amplicon sequencing identifies community spread and ongoing evolution of SARS-CoV-2 in the Southern United States	2020	BioRxiv
	SARS-CoV-2 RNA isolation	Miladi et al.	The landscape of SARS-CoV-2 RNA modifications	2020	BioRxiv
		Batejat et al.	Heat inactivation of the Severe Acute Respiratory Syndrome Coronavirus 2	2020	BioRxiv

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Featured Product	Application	Author	Article	Year	Journal
	SARS-CoV-2 RNA isolation	Kitagawa et al.	Effectiveness of 222-nm ultraviolet light on disinfecting SARS-CoV-2 surface contamination	2020	American Journal of Infection Control
	SARS-CoV-2 RNA isolation	Klempt et al,	Performance of Targeted Library Preparation Solutions for SARS-CoV-2 Whole Genome Analysis	2020	Diagnostics
	SARS-CoV-2 RNA isolation	Boumaza et al.	Monocytes and macrophages, targets of SARS-CoV-2: the clue for Covid-19 immunoparalysis	2020	BioRxiv
Nuclea Spin® BNA Virus	SARS-CoV-2 RNA isolation	Biguenet et al.	SARS-CoV-2 respiratory viral loads and association with clinical and biological features	2020	Journal of Medical Virology
NucleoSpin <sup>®</sup> RNA Virus Part 3	SARS-CoV-2 RNA isolation	Bailo Diallo et al.	Daytime variation in SARS-CoV-2 infection and cytokine production	2020	BioRxiv
	SARS-CoV-2 RNA isolation	Elibol et al.	Otolaryngological symptoms in COVID-19	2020	European Archives of Oto- Rhino-Laryngology
	SARS-CoV-2 RNA isolation	Grillet et al	COVID-19 pneumonia: microvascular disease revealed on pulmonary dual-energy computed tomography angiography	الم المالية الم	Quantitative Imaging in Medicine and Surgery
	SARS-CoV-2 RNA isolation	Fernández-de- Mera et al.	Detection of environmental SARS-CoV-2 RNA in a high prevalence setting in Spain	2020	Transboundary and Emerging Diseases
NucleoSpin <sup>®</sup> DX Virus Part 1	SARS-CoV-2 RNA isolation	Lescure et al.	Clinical and virological data of the first cases of COVID-19 in Europe: a case series	2020	The Lancet Infectious Diseases
	SARS-CoV-2 RNA isolation	Gámbaro et. al.	Introductions and early spread of SARS-CoV-2 in France	2020	BioRxiv
· Git i	SARS-CoV-2 RNA isolation	L'Helgouach et a	EasyCOV: LAMP based rapid detection of SARS-CoV-2 in l. saliva	2020	MedRxiv

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Featured Product	Application	Author	Article	Year	Journal
	SARS-CoV-2 RNA isolation	Thacker et al.	Rapid endothelialitis and vascular inflammation characterise SARS-CoV-2 infection in a human lung-on-chip model	2020	BioRxiv
NucleoSpin <sup>®</sup> DX Virus Part 2	SARS-CoV-2 RNA isolation	Hourdel et al.	Rapid Genomic Characterization of SARS-CoV-2 by Direct Amplicon-Based Sequencing Through Comparison of MinION and Illumina iSeq100TM System	2020	Frontiers in Microbiology
	SARS-CoV-2 RNA isolation	Lyonnaise et al.	Direct visualization of native infectious SARS-CoV-2 ant its inactivation forms using high resolution Atomic Force Microscopy	y <sup>2020</sup>	BioRxiv
	SARS-CoV-2 RNA isolation	Nelson et al.	Analytical Validation of a COVID-19 qRT-PCR Detection Assay Using a 384-well Format and Three Extraction Methods	2020	BioRxiv
NucleoSpin <sup>®</sup> Virus	SARS-CoV-2 RNA isolation	Rodon et al.	Search for SARS-CoV-2 inhibitors in currently approved drugs to tackle COVID-19 pandemia	2020	BioRxiv
·	SARS-CoV-2 RNA isolation	Kadiane-Oussou et al.	COVID-19: comparative clinical features and outcome in 114 patients with or without pneumonia (Nord Franche-Comte Hospital, France)	2020	Microbes and Infection
	SARS-CoV-2 RNA isolation on EpMotion 5073	Singh et al.	SARS-CoV-2 infection leads to acute infection with dynamic cellular and inflammatory flux in the lung that varies across nonhuman primate species	2020	BioRxiv
NucleoMag <sup>®</sup> Pathogen	SARS-CoV-2 RNA isolation on EpMotion 5073	Baum et al.	REGN-COV2 antibody cocktail prevents and treats SARS-CoV-2 infection in rhesus macaques and hamsters	2020	BioRxiv
Part 1	SARS-CoV-2 RNA isolation	V'kovski et al.	Disparate temperature-dependent virus – host dynamics for SARS-CoV-2 and SARS-CoV in the human respiratory epithelium	2020	BioRxiv
	SARS-CoV-2 RNA isolation	Vogel et al.	A prefusion SARS-CoV-2 spike RNA vaccine is highly immunogenic and prevents lung infection in non-human primates	2020	BioRxiv
	SARS-CoV-2 RNA isolation	Biguenet et al.	SARS-CoV-2 respiratory viral loads and association with clinical and biological features	2020	Journal of Medical Virology

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NucleoMag <sup>®</sup> Pathogen Part 2	SARS-CoV-2 RNA isolation	Manfredonia et a	I. Genome-wide mapping of therapeutically-relevant SARS-CoV-2 RNA structures	2020	BioRxiv
NucleoMag <sup>®</sup> Vet	SARS-CoV-2 RNA isolation on King Fisher Flex	Pfaender et al.	LY6E impairs coronavirus fusion and confers immune control of viral disease	2020	Nature Microbiology
Nucleomag <sup>®</sup> vet	SARS-CoV-2 RNA isolation	Wernike et al.	Pitfalls in SARS-CoV-2 PCR diagnostics	2020	Transboundary and Emerging Diseses
NucleoMag <sup>®</sup> Virus	SARS-CoV-2 RNA isolation on King Fisher	Hourdel et al.	Rapid Genomic Characterization of SARS-CoV-2 by Direct Amplicon-Based Sequencing Through Comparison of MinION and Illumina iSeq100TM System	2020	Frontiers in Microbiology

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#### **Isolation of viral RNA**

Featured Product	Application	Author	Article	Year	Journal
NucleoSpin <sup>®</sup> RNA Virus	RNA isolation from SARS- coronavirus species	Niemeyer et al.	The papain-like protease determines a virulence trait that varies among members of the SARS-coronavirus species		PLOS Pathogens
NucleoSpin <sup>®</sup> DX Virus/NucleoSpin <sup>®</sup> RNA	Viral RNA isolation	Poissy et al.	Kinetics and pattern of viral excretion in biological specimens of two MERS-CoV cases	2014	Journal of Clinical Virology
	Viral RNA from nasal swabs	Zayet et al.	Clinical features of COVID-19 and influenza: a comparative study on Nord Franche-Comte cluster	2020	Microbes and Infection
NucleoSpin <sup>®</sup> RNA Virus	Viral RNA from respiratory samples, nasal swabs, sputum, bronchoalveolar lavage fluids	Klopfenstein et al.	New loss of smell and taste: Uncommon symptoms in COVID- 19 patients on Nord Franche-Comte cluster, France	2020	International Journal of Infectious Disease
	Viral RNA from nasal and rectal swabs	Vergara-Alert et al.	Livestock Susceptibility to Infection with Middle East Respiratory Syndrome Coronavirus	2017	Emerging Infectious Diseases
NucleoMag <sup>®</sup> Vet	Isolation of viral RNA from nasal wash samples on King Fisher Flex	Lee et al.	Baloxavir treatment of ferrets infected with influenza A(H1N1)pdm09 virus reduces onward transmission	2020	PLOS Pathogens
Nucleomay vet	Viral RNA from apical washes	Holwerda et al.	Determining the Replication Kinetics and Cellular Tropism of Influenza D Virus on Primary Well-Differentiated Human Airway Epithelial Cells		Viruses
	Virial RNA from Nasal swabs	Kuiper et al.	Detection of SARS-CoV-2 from raw patient samples by coupled high temperature reverse transcription and amplification	2020	MedRxiv
NucleoMag <sup>®</sup> 96 Virus	Viral RNA from viscera	Moreno et al.	Detection and full genome characterization of two beta CoV viruses related to Middle East respiratory syndrome from bats in Italy	2017	Virology Journal

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#### **Viral RNA from environmental samples**

Featured Product	Application	Author	Article	Year	Journal
NucleoSpin <sup>®</sup> Soil	Viral DNA isolation from sediments	Alfano et al.	Non-invasive surveys of mammalian viruses using environmental DNA	2020	BioRxiv
	Viral RNA isolation from wastewater	McNamara et al.	High-Density Amplicon Sequencing Identifies Community Spread and Ongoing Evolution of SARS-CoV-2 in the Southern United States	2020	Cell Reports
	Viral RNA isolation from wastewater	Yaniv et al.	City-level SARS-CoV-2 sewage surveillance	2020	MedRxiv
	Viral RNA isolation from wastewater	Cuevas-Ferrando et al.	Recovering coronavirus from large volumes of water	2020	Science of the total environment
NucleoSpin <sup>®</sup> RNA Virus	Viral RNA isolation from wastewater	Ali et al.	Tracking SARS-CoV-2 RNA through the wastewater treatment process	2020	MedRxiv
	Viral RNA isolation from wastewater	Patel et al.	Coronavirus (SARS-CoV-2) in the environment: Occurrence, persistence, analysis in aquatic systems and possible managemer	2020 nt	Science of the total environment
	Viral RNA isolation from wastewater	Colosi et al.	Development of wastewater pooled surveillance of SARS-CoV-2 from congregate living settings	2020	MedRxiv
	Viral RNA isolation from wastewater	Westhaus et al.	Detection of SARS-CoV-2 in raw and treated wastewater in Germany- suitable for COVID-19 surveillance and potential transmission risk	2020	Science of the Total Environment
	Viral RNA isolation from wastewater	Randazzo et al.	SARS-CoV-2 RNA in wastewater anticipated COVID-19 occurrence in a low prevalence area	e 2020	Water Research
	Viral RNA isolation from wastewater	Kumar et al.	First proof of the capability of wastewater surveillance for COVID- 19 in India through detection of genetic material of SARS-CoV-2	2020	Science of the Total Environment
	Viral RNA isolation from wastewater	Trottier et al.	Post-lockdown detection of SARS-CoV-2 RNA in the wastewater of Montpellier, France	of 2020	One Health

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#### **Technical support**

For further information on the use of MACHEREY-NAGEL kits with environmental samples get in touch with our technical support team <u>tech-bio@mn-net.com</u>. Thank you for your interest in MACHEREY-NAGEL products!

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