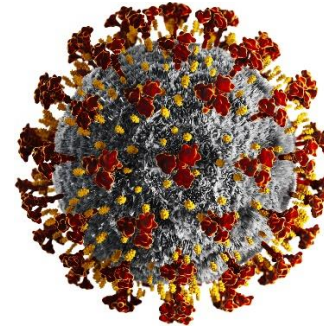


## MACHEREY-NAGEL's latest references for Covid-19 and viral nucleic acid isolation



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
NucleoSpin® RNA Virus Part 1	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	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	Cortese et al.	Integrative imaging reveals SARS-CoV-2 induced reshaping of subcellular morphologies	2020	Cell & Host
	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
	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	Fernández-de-Mera et al.	Detection of environmental SARS-CoV-2 RNA in a high prevalence setting in Spain	2020	Transboundary and Emerging Diseases

Featured Product	Application	Author	Article	Year	Journal
<b>NucleoSpin® RNA Virus Part 2</b>	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	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
	SARS-CoV-2 RNA isolation	Moeller et al.	Effect of statins on SARS-CoV-2 infection	2020	medRxiv
	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 potentially 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
SARS-CoV-2 RNA isolation	Batejat et al.	Heat inactivation of the Severe Acute Respiratory Syndrome Coronavirus 2	2020	BioRxiv	



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<b>NucleoSpin® RNA Virus Part 3</b>	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
	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
	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	2020	Quantitative Imaging in Medicine and Surgery
	SARS-CoV-2 RNA isolation	Kaptein et al.	Favipiravir at high doses has potent antiviral activity in SARS-CoV-2-infected hamsters, whereas hydroxychloroquine lacks activity	2020	PNAS
	SARS-CoV-2 RNA isolation	Younes et al.	Challenges in Laboratory Diagnosis of the Novel Coronavirus SARS-CoV-2	2020	MDPI
	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 and Infections
	SARS-CoV-2 RNA isolation	Doussot et al.	Prone Positioning for Severe Acute Respiratory Distress Syndrome in COVID-19 Patients by a Dedicated Team	2020	Annals of Surgery
	SARS-CoV-2 RNA isolation	Lohse et al.	Predictive factors of mortality in patients treated with tocilizumab for acute respiratory distress syndrome related to coronavirus disease 2019 (COVID-19)	2020	Microbes and Infection



Featured Product	Application	Author	Article	Year	Journal
<b>NucleoSpin® RNA Virus Part 4</b>	SARS-CoV-2 RNA isolation	Klopfenstein et al.	Impact of tocilizumab on mortality and/or invasive mechanical ventilation requirement in a cohort of 206 COVID-19 patients	2020	International Journal of Infectious Diseases
	SARS-CoV-2 RNA isolation	Emanuel et al.	Bulk and single-cell gene expression profiling of SARS-CoV-2 infected human cell lines identifies molecular targets for therapeutic intervention	2020	BioRxiv
	SARS-CoV-2 RNA isolation	Kriegova et al.	Direct-RT-qPCR Detection of SARS-CoV-2 without RNA Extraction as Part of a COVID-19 Testing Strategy: From Sample to Result in One Hour	2020	MDPI
	SARS-CoV-2 RNA isolation	Bardi et al.	Impacts of different operational temperatures and organic loads in anaerobic co-digestion of food waste and sewage sludge on the fate of SARS-CoV-2	2021	Process Safety and Environment Protection
	SARS-CoV-2 RNA isolation	Perez-Cataluna	Comparing analytical methods to detect SARS-CoV-2 in wastewater	2021	Science of The Total Environment
<b>NucleoSpin® DX Virus Part 1</b>	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
	SARS-CoV-2 RNA isolation	L'Helgouach et al.	EasyCOV : LAMP based rapid detection of SARS-CoV-2 in saliva	2020	MedRxiv
	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
	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



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	SARS-CoV-2 RNA isolation	Lyonnaise et al.	Direct visualization of native infectious SARS-CoV-2 and its inactivation forms using high resolution Atomic Force Microscopy	2020	BioRxiv
<b>NucleoSpin® DX Virus Part 2</b>	SARS-CoV-2 RNA isolation	Rodon et al.	Search for SARS-CoV-2 inhibitors in currently approved drugs to tackle COVID-19 pandemic	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
<b>NucleoSpin® RNA</b>	SARS-CoV-2 RNA isolation	Klein et al.	SARS-CoV-2 structure and replication characterized by in situ cryo-electron tomography	2020	Nature Communications
	SARS-CoV-2 RNA isolation	Boudewijns et al.	STAT2 signaling restricts viral dissemination but drives severe pneumonia in SARS-CoV-2 infected hamsters	2020	Nature Communications
	SARS-CoV-2 RNA isolation	Youk et al.	Three-Dimensional Human Alveolar Stem Cell Culture Models Reveal Infection Response to SARS-CoV-2	2020	Cell Stem Cell
	SARS-CoV-2 RNA isolation	Antnharaj et al.	Visual Detection of SARS-CoV-2 RNA by Conventional PCR-Induced Generation of DNazyme Sensor	2020	Frontiers in Molecular Bioscience
	SARS-CoV-2 RNA isolation	Kamel et al.	Global analysis of protein-RNA interactions in SARS-CoV-2 infected cells reveals key regulators of infection	2020	BioRxiv
	SARS-CoV-2 RNA isolation	Limonta et al.	Nodosome inhibition as a novel broad-spectrum antiviral strategy against arboviruses and SARS-CoV-2	2020	BioRxiv
<b>NucleoSpin® RNA Plus</b>	SARS-CoV-2 RNA isolation	Stukalov et al.	Multi-level proteomics reveals host-perturbation strategies of SARS-CoV-2 and SARS-CoV	2020	BioRxiv
<b>NucleoSpin® RNA Plus</b>	SARS-CoV-2 RNA isolation	Thao et al.	Rapid reconstruction of SARS-CoV-2 using a synthetic genomics platform	2020	Nature



## Isolation of viral RNA

Featured Product	Application	Author	Article	Year	Journal
<b>NucleoSpin® RNA Virus</b>	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	2018	PLOS Pathogens
<b>NucleoSpin® DX Virus/NucleoSpin® RNA</b>	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
<b>NucleoSpin® RNA Virus</b>	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
	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
<b>NucleoSpin® Soil</b>	Viral DNA isolation from sediments	Alfano et al.	Non-invasive surveys of mammalian viruses using environmental DNA	2020	BioRxiv



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## Viral RNA from environmental samples

Featured Product	Application	Author	Article	Year	Journal
NucleoSpin® RNA Virus	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	Kumar et al.	Decay of SARS-CoV-2 RNA along the wastewater treatment outfitted with Upflow Anaerobic Sludge Blanket (UASB) system evaluated through two sample concentration techniques	2021	Science of the total environment
	Viral RNA isolation from wastewater	Alygizakis et al.	Analytical methodologies for the detection of SARS-CoV-2 in wastewater: Protocols and future perspectives	2020	TrAC Trends in Analytical Chemistry
	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
	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 management	2020	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	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	2020	One Health
	NucleoSpin® Soil	Viral DNA isolation from sediments	Alfano et al.	Non-invasive surveys of mammalian viruses using environmental DNA	2020

## Technical support

For further information on the use of MACHEREY-NAGEL kits with environmental samples get in touch with our technical support team [tech-bio@mn-net.com](mailto:tech-bio@mn-net.com). Thank you for your interest in MACHEREY-NAGEL products!



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