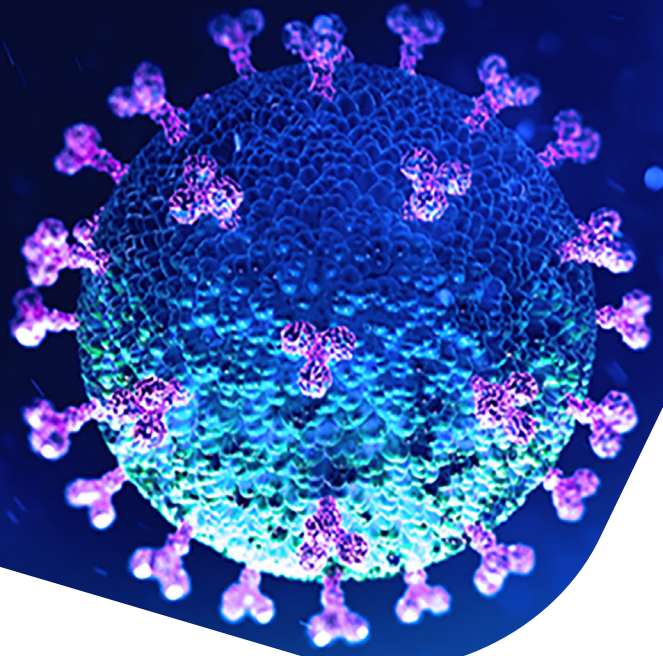


NEWS on diagnostics

2020 Special Edition



Extra-Ordinary Special Edition

In response to the Extra-Ordinary situation the world finds itself in at present, we have collated the products and services we can offer to support test development for COVID-19 in an Extra-Ordinary Special Edition of News on Diagnostics.

We are committed to providing researchers and organizations with the necessary products and services that can aid the COVID-19 response. As such, our top priorities remain the safety and well-being of our employees, meeting the needs of our customers, providing accurate, timely, information, and ensuring business continuity.

Our COVID-19 page is constantly being updated, as we learn more about this virus. You can find information on:

Virus Detection - We are committed to providing researchers with the reagents and technical expertise for timely support of the COVID-19 outbreak. Explore our offering across viral RNA purification, RT-PCR, RT-qPCR, Immunoassay, and supporting reagents that are suitable for SARS-CoV-2 diagnostics assay development.

Virus Characterization - Effective vaccines and therapies start with reliable virus characterization.

To study viral attachment and entry, viral genomics, or viral proteomics requires trusted reagents and a breadth of labware specialized for safe, effective work with viruses and other infectious agents.

Vaccine Production - Multiple companies have announced efforts to produce a vaccine to prevent future outbreaks of COVID-19. Vaccine production processes are highly variable depending on the production platform utilized. Get a full outline of how we can support your specific vaccine production needs.

Therapy Production - Across the globe, the race is on to find therapies that can be used to treat individuals who have become infected with Sars-CoV-2. Whatever modality you are working in, we have the products and services to support your drug production. We also have full-service contract manufacturing capabilities to support bringing your therapy to market.

Personal Protective Equipment & ATP testing and sanitation - a consolidated range of our PPE, including gloves and laboratory coats, as well as checks and measures for the effectiveness of cleaning procedures.



Products for PCR-Based Diagnostic Development



Sample Collection and Stabilization

- From various sources and FFPE samples
- Collection cards and containers
- Stabilizing reagents

Nucleic Acid Extraction and Purification

- Lysis method
- Organic extraction
- Column extraction and purification

Amplification

- PCR, qPCR, real-time PCR, RT-PCR and RT-qPCR reagents & kits
 - DNA/RNA templates and polymerases
- dNTPs/rNTPs
- PCR accessories and equipment

Post-PCR Clean Up

- Gel purification
- Spin columns
- High-throughput kits
- Magnetic beads

qPCR Design Case Study to Support SARS-CoV-2 Research

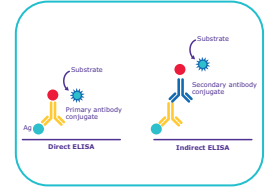
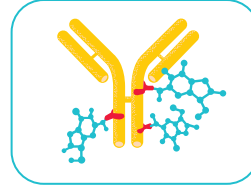
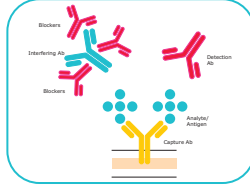
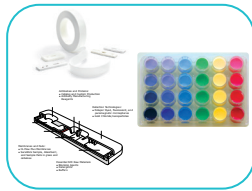
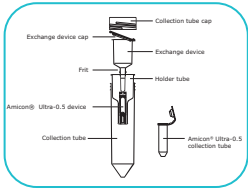
Here you will find information on

- SARS-CoV-2 qPCR Assay Design & Reactivity
- SARS vs. SARS-CoV-2 Positive Control Assay
- Coronavirus SARS-CoV-2 Primer and Probe Design
- RT-PCR and RT-qPCR Genetic Analysis and Supporting Reagents

Read more on our case study at

[SigmaAldrich.com/ncov-coronavirus](https://www.sigmaaldrich.com/ncov-coronavirus)

Product offering for immunoassay diagnostic development



Sample Prep

- Amicon Ultra
- Filtration Membrane
- Biological Buffers (Tris, PBS, HEPES, etc.)
- Cell Lysis (CellLytic™, Enzymes, SDS)
- Detergents/Surfactants
- Protease Inhibitors

Immunoassay Supports

- ELISA Plates
- EliSpot Plates
- Lateral Flow Membranes
- Estapor® Beads
- Membranes

Blocking and Washing

- Probumin® BSA
- ChemiBlock
- Serums
- Casein
- Biocides (Proclin™)
- Nonfat Dry Milk
- Immunoglobulins
- Biological Buffers (Tris, PBS, HEPES, etc.)

Analyte Binding

- 90,000+ Antibodies
- Polyclonal
- Monoclonal
- Recombinant
- Biological Buffers (Tris, PBS, HEPES, etc.)

Detection

- Secondary Antibodies
- Enzymes (HRP, ALP, etc.)
- Enzyme Substrates
- Fluorophores
- Avidin/Biotin
- Bioconjugation Chemistries

Whether you are developing tests using lateral flow, ELISA, or CLIA/CLEIA we can support your science.

Sigmaaldrich.com/IVDLateral-Flow

Sigmaaldrich.com/IVDELISAManufacturers

Sigmaaldrich.com/chemiluminescent-IA

More information for visit SigmaAldrich.com/covid

Custom and Contract Manufacturing Services

Our quality systems and regulatory expertise combined with a full range of custom and contract manufacturing services provide a global solution for the diagnostics and clinical testing industry. We offer a comprehensive array of services to meet the

development and production needs of diagnostic manufacturing and clinical testing organizations worldwide. Our team has dedicated expertise in contract manufacturing reagents and kits for sample preparation, molecular, and immunoassay products.

Learn how we can support you at SigmaAldrich.com/oem and request a consultation



How are we maintaining our supply chain?

We understand you will have questions about supply chain, and how we are supporting you during this pandemic crisis.

These Frequently Asked Questions (FAQ), as well as the COVID-19 webpage will continue to be updated as new information is available.

Status: March 9, 2020

We are committed to keeping you informed of our efforts to ensure minimal disruption to our supply chain, as well as our commitment to the safety of our employees and our customers— who remain our priority, as measures are taken to contain and treat COVID-19.

Dear Customer:

As a global life science business, we are committed to supplying our customers in all markets served and, as such, are actively monitoring our supply chain for potential impacts due to escalation in the outbreak of the Coronavirus disease (COVID-19) caused by the SARS-CoV-2 virus.

Current Operations

As the Coronavirus disease (COVID-19) affects more regions around the world, Merck continues to monitor the situation closely, establishing protocols and guidelines to minimize the impact whenever possible to our employees, our sites and our supply. We are following guidance outlined by the WHO, CDC and governments of impacted countries, many of which have made hygiene and safety recommendations and implemented transportation restrictions. Our global sites have relevant and approved preparedness plans and are empowered to act per their local scenarios, as necessary.

In China, we have successfully resumed operations at our production facilities in Nantong and Wuxi and our suppliers also continue to increase their levels of resumed operations. As shipping lanes in and out of China continue to improve, we are actively monitoring logistic routes and transportation options to fulfill our shipping requirements.

Managing Supply Chain Risk

Merck's Life Science business has mobilized a global task force to actively evaluate the overall supply chain of both our products and key raw material suppliers to mitigate any potential supply disruption.

Our task force continues to leverage our business continuity plans, which includes risk mitigation activities in all impacted countries. These measures include increasing safety stock of products sourced in those countries and activating our validated secondary suppliers in accordance with our quality procedures where necessary. We have not experienced any



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Please visit [SigmaAldrich.com/newsondiagnostics](https://www.sigmaaldrich.com/newsondiagnostics) and complete the online form.

