

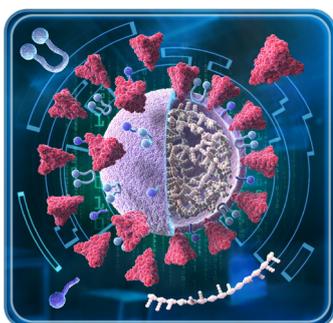
# SARS-CoV-2 Reagents

## Dismantle SARS-CoV-2 at Every Step of the Workflow

We want to disrupt and dismantle SARS-CoV-2. This means understanding its entry points into host cells and the pathways it utilizes. It means discerning effective cellular responses in COVID-19 patients and disease models. And it means discovering new biomarkers and pathways for therapeutic treatments, vaccine candidates, and viral detection kits. We've organized our diverse products by workflow stages, making it easier to pick your reagents and start your experiments.

View all of our reagents at: [biolegend.com/en-us/sars-cov-research](https://www.biolegend.com/en-us/sars-cov-research)

## Viral Recognition and Inflammation



Viral entry and the resulting inflammation are key mechanisms under investigation by SARS-CoV-2 researchers. We provide recombinant proteins and antibodies (spike protein, ACE2, and neuropilin-1) to investigate the points of SARS-CoV-2 viral entry. Our ELISA Kits and LEGENDplex™

assays can further characterize early inflammation and the efficacy of interventions by tracking the cytokine response.

### Featured Products

#### Unique Recombinant Proteins

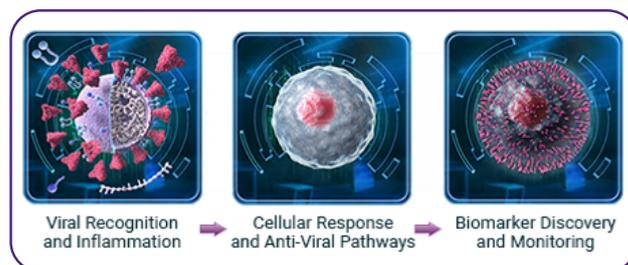
BioLegend offers a large selection of recombinant proteins including various cytokines and growth factors important to understanding SARS-CoV-2. We have also released an array of SARS-CoV-2 proteins including spike protein variants and mutants. Among our recombinant proteins, several have been customized to offer unique features, including:

- SARS-CoV-2 S Protein S1+S2 (R683A, R685A): A mutant form of the protein that improves stability by reducing susceptibility to protease cleavage.
- Biotinylated S Protein S1 and RBD: the Avi-tag biotinylation allows for tetramer formation to identify antigen-specific B cells. It can also be used in various immunoassays including ELISA, flow cytometry, and proteogenomics.
- Human ACE2-Fc Chimera: this Fc variant allows for its usage in a variety of assays.

#### Anti-SARS-CoV-2 RBD and S1 IgG ELISA Kits

Our anti-SARS-CoV-2 ELISA Kits detect antibodies against the RBD or S1 portions of the SARS-CoV-2 spike protein. They are quantitative assays capable of providing information on the specific levels of antibodies within your samples.

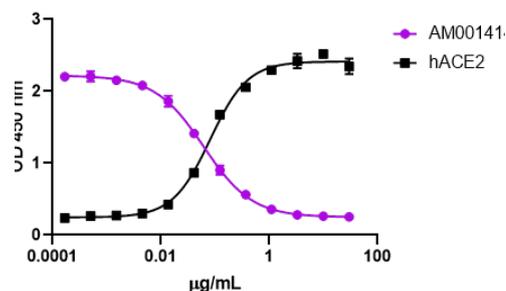
- LEGEND MAX™ SARS-CoV-2 Spike RBD Human IgG ELISA Kit
- LEGEND MAX™ SARS-CoV-2 Spike S1 Human IgG ELISA Kit



#### Patient-Derived S1 Recombinant Antibodies

Our newest S Protein S1 recombinant antibodies are derived from the sequence of antibodies obtained from patients who recovered from COVID-19. These antibodies are tested in several applications including blocking, western blotting, and ELISA. Among our blocking antibodies, clone AM001414 exhibits the highest blocking capacity.

#### Blocking Capacity of Clone AM001414



Recombinant human ACE2 (Cat. No. 792002) (black squares) binds to immobilized recombinant SARS-CoV-2 S protein S1-Fc chimera (Cat. No. 793004) in a dose-dependent manner. Purified anti-SARS-CoV-2 S protein S1 recombinant antibody (clone AM001414) (purple circles) inhibits the binding in a dose-dependent manner. This antibody blocks the binding of 0.5 µg/mL recombinant human ACE2 to 1.0 µg/mL immobilized recombinant SARS-CoV-2 S protein S1-Fc chimera with an ND<sub>50</sub> range of 0.03 - 0.12 µg/mL.

#### SARS-CoV-2 and Inflammation LEGENDplex™ Kits

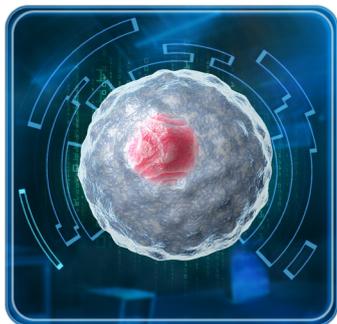
Use LEGENDplex™ panels to investigate the inflammatory response to SARS-CoV-2 and cytokine response syndrome. Our panels characterize up to 13 relevant analytes in a single assay. Critical panels for this emerging research area include:

- Human and Mouse Anti-Virus Response Panels
- Human and Mouse Immune Response Panels
- Human and Mouse Inflammation Panels
- Human Proinflammatory Chemokine Panel
- Mouse Cytokine Response Panel
- SARS-CoV-2 Biomarker Panel (coming soon)
- SARS-CoV-2 Antibody Panel (coming soon)

Learn more about LEGENDplex™ at: [biolegend.com/en-us/legendplex](https://www.biolegend.com/en-us/legendplex)

# SARS-CoV-2 Reagents

## Cellular Responses and Anti-Viral Pathways



In order to gauge an effective immune response, it is critical to characterize the cellular immune response, particularly T cells. We have developed unique tools: MojoSort™ kits for the isolation of desired populations; MHC monomers pre-loaded with SARS-CoV-2 peptides for antigen-specific

T cell studies; and antibodies to detect key components of anti-viral pathways. BioLegend provides key tools for discovering how cells work together to dismantle SARS-CoV-2.

### Featured Products

#### MHC Monomers Specific for SARS-CoV-2

Our new SARS-CoV-2-specific Flex-T™ MHC reagents simplify your protocol and save time. Each HLA monomer comes ready-to-use with fixed relevant SARS-CoV-2 peptides, removing the need for a peptide exchange step and allowing you to track T cells for potential vaccine candidates. Be on the lookout for more SARS-CoV-2-specific monomers in the future!

Flex-T™ Peptide	SARS-CoV-2 Component
TLACFVLAAV	Membrane protein (61-70)
GMSRIGMEV	Nucleoprotein (316-324)
LLLDRLNQL	Nucleoprotein (222-230)
SIIAYTMSL	Spike protein (691-699)
ALNTLVKQL	Spike protein (958-966)
VLNDILSRL	Spike protein (976-984)
LITGRLQSL	Spike protein (996-1004)
VVFLHVTYV	Spike protein (1042-1050)
RLNEVAKNL	Spike protein (1185-1193)
NLNESLIDL	Spike protein (1192-1200)
FIAGLIAIV	Spike protein (1220-1228)

View all Flex-T™ products at: [biolegend.com/en-us/flex-t](https://biolegend.com/en-us/flex-t)

#### MojoSort™ Reagents for Cell Isolation

MojoSort™ Kits allow you to use magnetic nanoparticles to quickly isolate cells of interest with high purity and yield. Based on our testing, cells isolated with MojoSort™ reagents retain functionality for downstream applications. Find kits for T cells, B cells, NK cells, and monocytes.

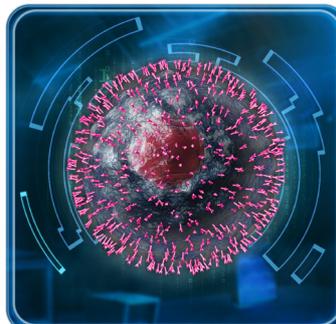
View all MojoSort™ products at: [biolegend.com/en-us/mojosort](https://biolegend.com/en-us/mojosort)

We're continually releasing new products.

See our updated list: [biolegend.com/productlist](https://biolegend.com/productlist)



## Biomarker Discovery and Monitoring



Deciphering the existence of yet undiscovered biomarkers can open the door to effective therapies and treatments. We have designed potent solutions in the research field to quickly identify novel biomarkers and immune pathways. Explore cell states and genetic versus protein

dynamics with our antibody-oligo conjugates, TotalSeq™. We also offer LEGENDScreen™ kits for screening hundreds of markers on cells via flow cytometry. These unique tools provide unprecedented cell characterization for biomarker discovery, leading to potential therapeutic treatment development.

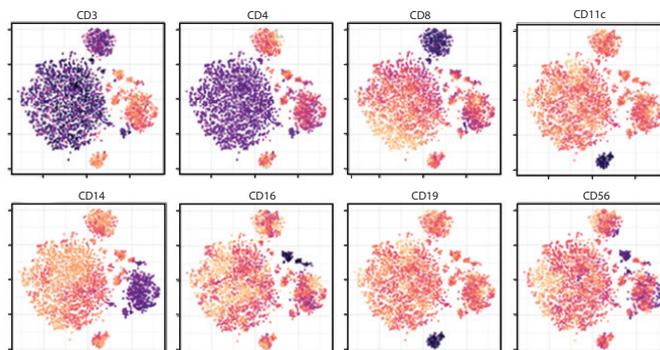
### Featured Products

#### TotalSeq™ Reagents for Proteogenomics

TotalSeq™ can be used to characterize single cells in a high throughput manner. These antibody-oligo conjugates contain unique nucleotide barcodes that integrate seamlessly into existing workflows, enabling you to simultaneously analyze protein and RNA expression on a single-cell level. TotalSeq™ is available as individual oligo-antibodies or pre-titrated, lyophilized antibody cocktails, or hashtags for multiplexing samples. Specifically, they can be used for:

- Multiomic analysis (Protein + RNA) of immune cells and lung alveolar lavage in COVID-19 patients (TotalSeq™-A or B in combination with 10x Genomics' Single Cell Expression Solution (3' assay)).
- TCR/BCR repertoire profiling in COVID-19 patients for immunotherapy and vaccine development (TotalSeq™-C with 10x Genomics' Immune Profiling Solution (5' assay)).

Learn more about TotalSeq™ at: [biolegend.com/en-us/totalseq](https://biolegend.com/en-us/totalseq)



Human PBMCs were stained with the TotalSeq™ Human TBNK panel containing antibodies against CD3, CD4, CD8, CD11c, CD14, CD16, CD19, CD56, and processed using the 10x Genomics' Single Cell 3' v3 feature barcoding kit and Illumina sequencing. Protein count data were transformed and visualized in a UMAP projection overlaid with protein expression levels for each component of the cocktail. Clusters were identified based on protein expression only.

Buyer is solely responsible for determining whether Buyer has all intellectual property rights that are necessary for Buyer's intended uses of the BioLegend TotalSeq™ products. For example, for any technology platform Buyer uses with TotalSeq™, it is Buyer's sole responsibility to determine whether it has all necessary third party intellectual property rights to use that platform and TotalSeq™ with that platform.