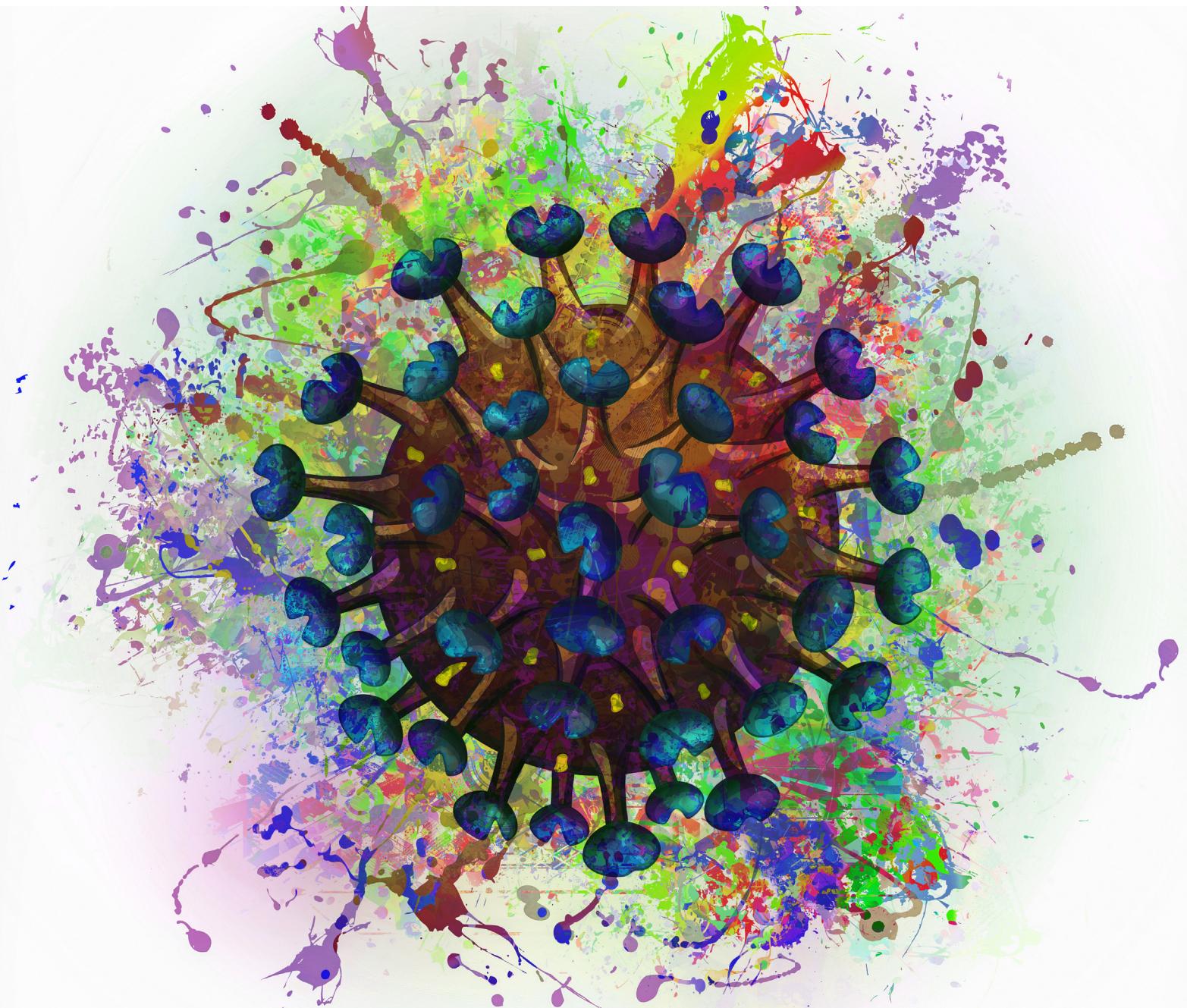




CORONAVIRUS

RESEARCH TOOLS FOR DRUG DISCOVERY,
DIAGNOSTICS & VACCINES

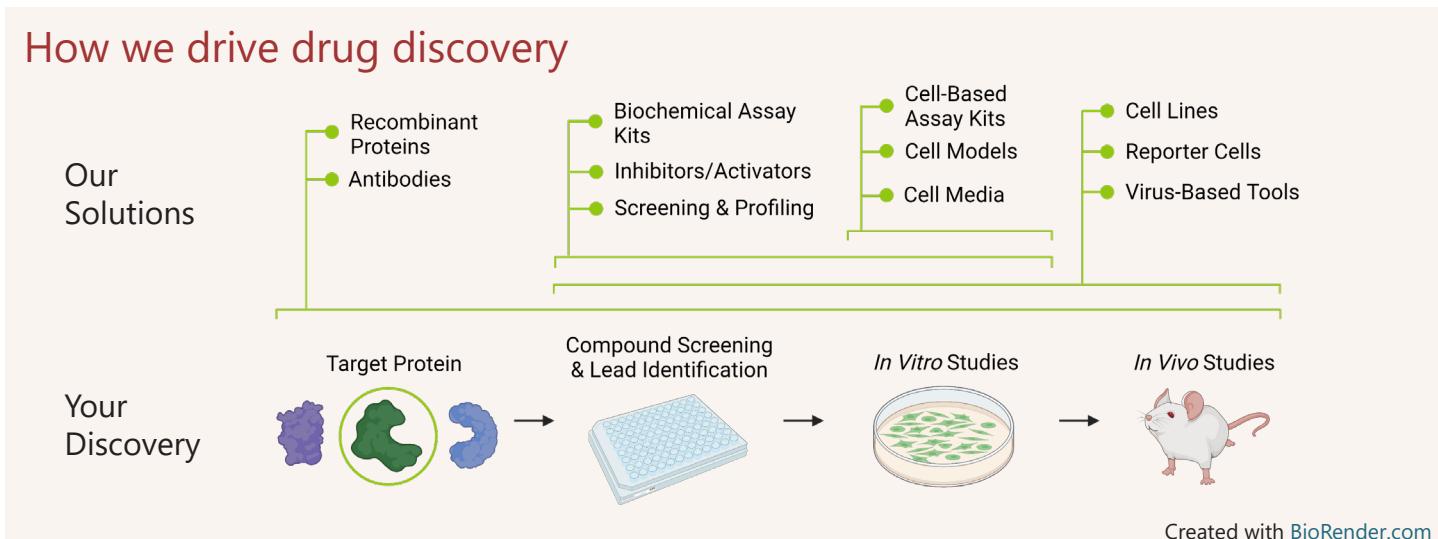
Proteins | Assay Kits | Virus-Based Tools | Antibodies | Custom Services



Start to Finish Solutions for Coronavirus

The COVID-19 pandemic, caused by the novel SARS-CoV-2 coronavirus, has ravaged the globe, infecting over 600 million people and causing over 6.5 million deaths as of Fall 2022. Ending the pandemic will require a combination of effective interventions, including therapeutics, diagnostics, and vaccines. While the latest vaccines have proven effective at reducing hospitalizations and deaths, new variants will likely continue to emerge and spread, requiring further research and advancements in prevention, diagnosis, and patient care. BPS Bioscience supports end-to-end research and development efforts from protein design to assay kit development and screening services. Our proven innovative solutions have already been utilized by pharma and vaccine developers worldwide.

How we drive drug discovery



Our Advantages



Produced In-House

- Made in the USA at our San Diego, CA laboratory
- Get customized, personal support directly from the source



Committed to Excellence

- ISO 9001:2015-certified Quality Management System
- Lot-specific quality testing



Broad Portfolio

- Full range of solutions for drug discovery, diagnostics, and vaccine development
- Cell lines, lentiviruses, proteins, screening assay kits, & antibodies
- Tools for the latest emergent variants



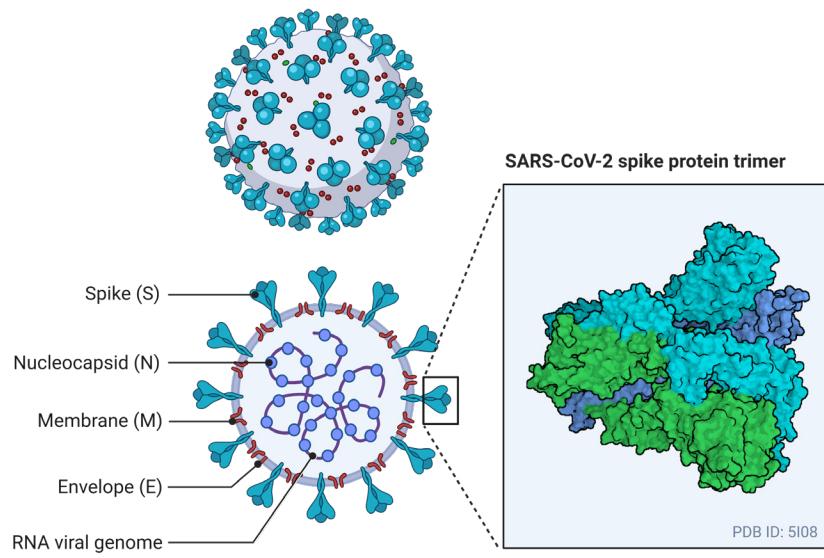
Customized Services

- CRISPR, screening & profiling, & custom development
- Custom cell line development services, custom knock-out and knock-in cell lines
- Unique panels of assays for evaluation of lead compounds



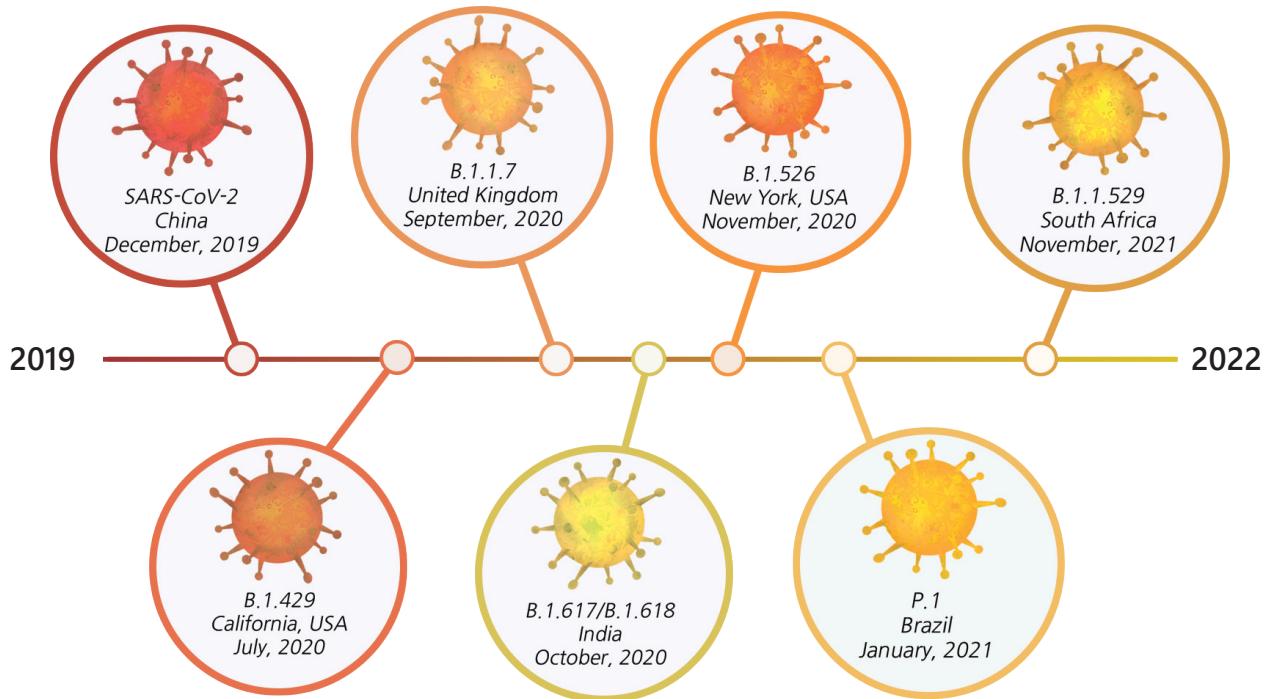
Coronavirus Structure and Mutant Variants

Coronaviruses, including SARS-CoV-2, are lipid membrane particles that have a distinct crown-like appearance, comprised of spike protein trimers. The spike protein is the primary protein responsible for receptor binding and fusion with the host cell membrane. Coronaviruses encode only a few structural proteins: spike, nucleocapsid, membrane, and envelope, while also encoding 16 nonstructural proteins and 9 accessory proteins involved in replication and virulence. Since spike is the major viral surface protein, mutations that arise in spike can lead to changes in virulence and infectivity, which has been closely monitored in emerging variants.



Created with BioRender.com

Throughout the course of the COVID-19 pandemic, new variants have emerged to become the dominant strain. The process has cycled through multiple variants with the newer dominant strain more infectious than its predecessor. BPS Bioscience has remained on the cutting edge of variant research by providing the latest tools for each emerging variant, including spike proteins, assay kits, pseudoviruses (lentivirus and VSV), and neutralizing antibodies.



Compare variants and find tools on our Variants page: bpsbioscience.com/sars-cov-2-coronavirus-variants

Research Products

All our products are developed with strict specifications, validated to support the intended applications for each. Our ISO 9001:2015-certified quality management system ensures consistent manufacturing within an environment of continuous improvement. Learn how our products can advance your COVID-19 discoveries.

PROTEINS



- High purity recombinant proteins, including: Spike (S1, RBD, Trimer), 3CL Protease, Papain-Like Protease (PLPro), RdRp, Nucleocapsid, ACE2, and more
- Worldwide Spike Variants, Spike Mutants
- Various tags including His and Fc
- Labeling includes Biotin or Eu
- Proteins for SARS-CoV-2, SARS-CoV-1, MERS-CoV, ACE2 Human and Monkey

ASSAY KITS



- Convenient activity assay kits for screening enzyme inhibitors and target molecules impacting SARS-CoV-2 pathological mechanisms
- Validation made simple with multiple kit formats
- Chemiluminescent, colorimetric, fluorogenic, and TR-FRET
- Homogenous, no-wash options available (fluorogenic and TR-FRET)

CELL LINES



- Convenient for binding assays, flow cytometry, and screening antibodies
- ACE2-expressing options available: HeLa, HEK293, CHO, and Vero E6 (TMPRSS2-expressing)
- Screen for antibodies against human ACE2, for competition binding studies with ACE2 soluble protein, and to determine blocking effects of Spike neutralizing antibodies

ANTIBODIES



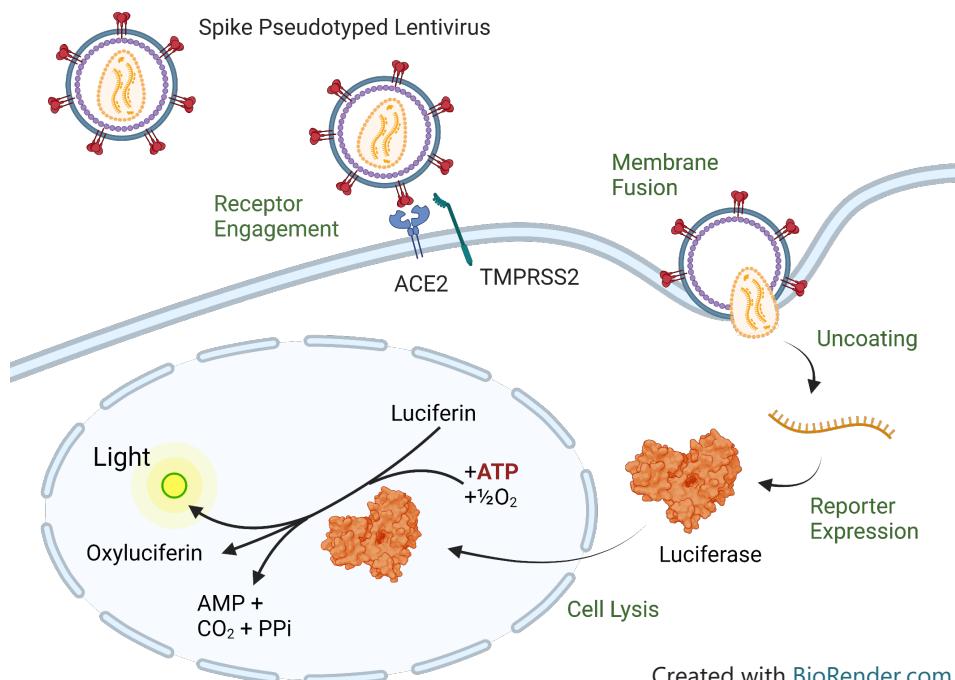
- Applications include neutralization, binding studies, flow cytometry, ELISA
- Anti-Spike, anti-Nucleocapsid antibodies
- Variant-recognizing clones
- Human IgG & IgM controls



Pseudoviruses for Modeling Infection

Principle of the Assay

Lentivirus and VSV vectors can be pseudotyped, which involves replacing the native envelope protein with another viral protein of interest. For example, variant-specific SARS-CoV-2 Spike protein can be expressed on lentivirus or VSV delta G particles for infection of ACE2-expressing cells. The delivered genomes are engineered to express reporter genes such as luciferase or eGFP, enabling sensitive, quantitative readouts of infection. These systems serve as excellent models to screen for blocking antibodies or small molecule inhibitors of infection.



Options for Optimal Experimentation

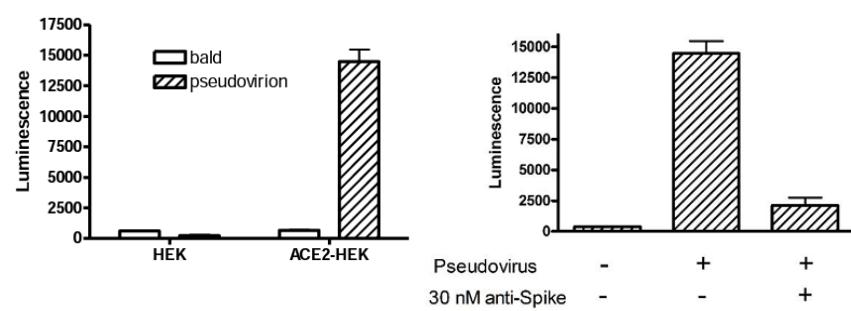
Virus Type	Reporters	Target Cell Types	Coronavirus Spike Variants
<ul style="list-style-type: none">LentivirusVSV delta G (preferred for Vero E6 infection)	<ul style="list-style-type: none">LuciferaseeGFPDual (Luc+eGFP)	<ul style="list-style-type: none">HeLa (ACE2)CHO (ACE2)HEK293 (ACE2)Vero E6 (TMPRSS2)	<ul style="list-style-type: none">SARS-CoV-2 emerging variants: BA.4/5, BA.2, BA.1Previous variants of interest: B.1.621, B.1.617.2, B.1.617.1, and many more

Advantages

- High titer
- Simple protocols, suitable for high throughput assays
- Bald Lentivirus and VSV delta G controls
- Lentiviruses to express receptors: ACE2, TMPRSS2
- Quickly customizable to address emerging variant mutations or new viruses

Example Data

Spike (SARS-CoV-2) Pseudotyped Lentivirus (Luc-eGFP Dual Reporter) (#79982) transduction of ACE2-HEK293 cells monitored by luciferase activity



Screening & Profiling

BPS Bioscience has developed innovative biochemical assays, cell-based assays, and screening services for investigating potential COVID-19 antiviral drugs. Identify antibodies or small molecule inhibitors that target either viral or host proteins.

- Screening and profiling services using our in-house developed assays
- Validation studies
- Custom development of biochemical and cell-based assays available

Biochemical and Cell-Based Assays

Use biochemical assays to examine the function of a protein or protein complex in a controlled *in vitro* format without influence from impurities or other proteins. On the other hand, cell-based assays can be used to evaluate protein function in the context of the whole cell or virus-cell interactions.

Biochemical



- Uses purified bioactive protein
- Available in a variety of formats, including no-wash homogenous assays for high throughput screening
- Buffers and substrates are optimized for use in the assay kit
- Useful for evaluating inhibitors of protein-protein interactions and inhibitors of viral enzymatic activities

Cell-Based



- Uses intact live cells
- Reporter cells and reporter kits are ideal for high throughput screening
- Effective for validating biochemical assay results
- Ideal for identifying inhibitors of infection

Our Deliverables to You



Detailed Results

Extensive report with raw and analyzed data, graphs, and detailed protocols. Typically includes positive controls for inhibition.



Fast Turnaround

Receive results within weeks after our receipt of your compounds.



Quality & Consistency

Proteins and enzymes synthesized and QC'd in-house to ensure the highest level of inter- and intra-assay consistency.



Extensive Selection

Choose from over 50 in-house developed coronavirus-relevant assays, including many novel assay kits for emerging variants.



Platform Options

Choose the format that works best for your experiment or perform orthogonal testing on multiple platforms to verify your results.



Protein Binding Studies - BLI Services

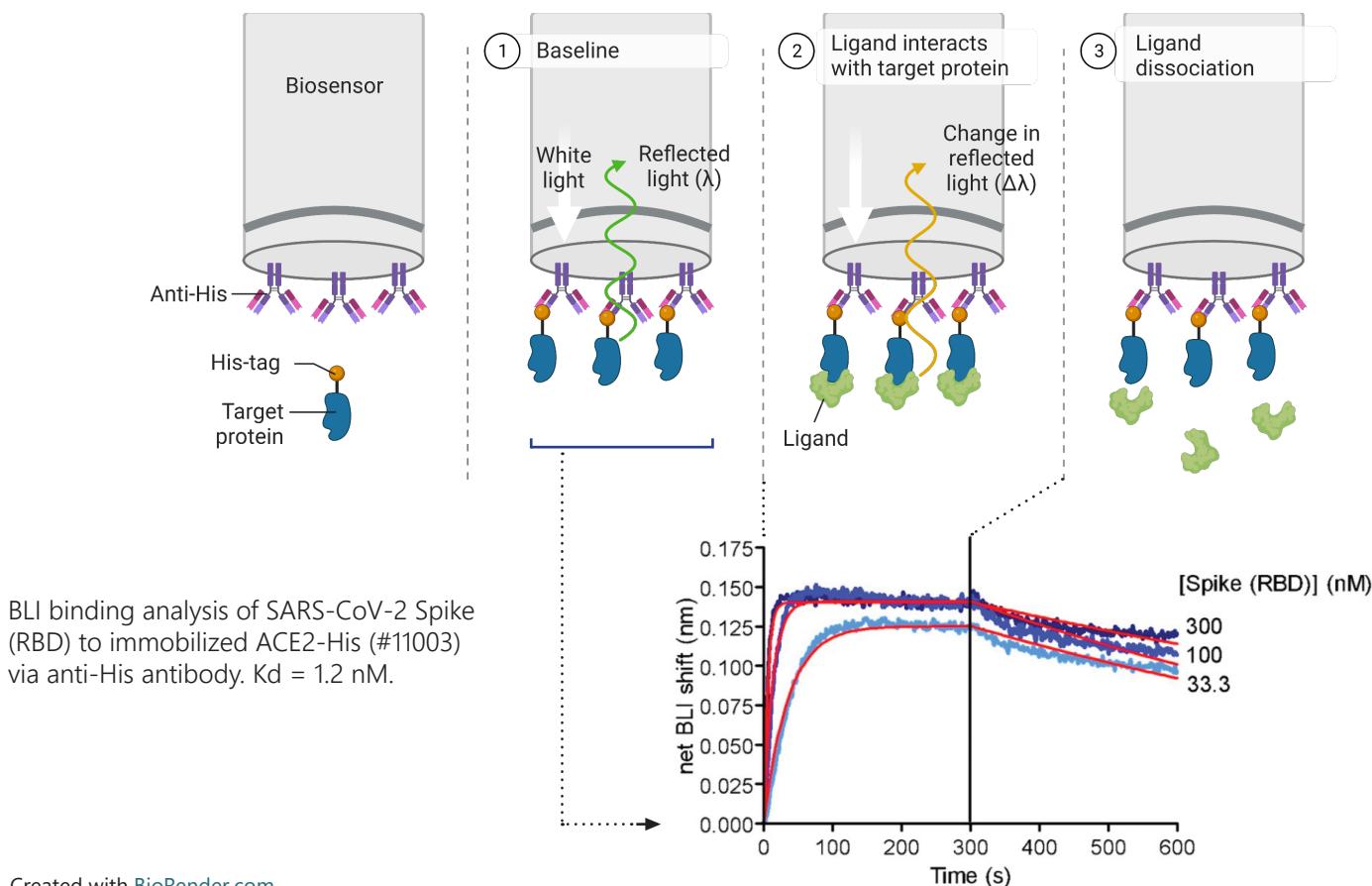
BPS Bioscience offers Bio-Layer Interferometry (BLI) services to evaluate and analyze protein interactions. Label-free analysis is a critical research method to determine the binding kinetic parameters of compounds or other binding partners. These studies are of key importance for pharmaceutical and biotechnological preclinical drug development.

Utilize our BLI services for deeper insight into your protein studies through measuring binding kinetics, steady state affinity, and through target validation. We will provide accurate and sensitive kinetic studies in a timely manner with detailed reports.

Available Services

- Protein immobilization
- Binding affinity measurements
- Data fitting and reporting
- Access to BPS Bioscience's extensive protein portfolio of target proteins
- Detailed final report includes all data, methods, and results

BLI Illustration Example:



Created with BioRender.com

Antibodies, Assay Kit Components, Biochemical Assay Kits

| Product Listing

Antibodies	Catalog#	Biochemical Assay Kits	Catalog#
Anti-Human IgG, Unconjugated Antibody	100736	3CL Protease, Untagged (SARS-CoV-2) Assay Kit	78042
Anti-Human IgM, Unconjugated Antibody	100737	ACE2 Inhibitor Screening Assay Kit	79923
Anti-Nucleocapsid Antibody (SARS-CoV-2)	100861	ACE2: Spike S1 RBD (SARS-CoV-2) Inhibitor Screening Assay Kit	79936
Anti-Spike S1 Monoclonal Antibody (SARS-CoV-2)	100715	ACE2: Spike S1 RBD, Mouse Fc-fusion (SARS-CoV-2) Inhibitor Screening Colorimetric Assay Kit	78031
Spike Neutralizing Antibody (Clone G10xA1) (SARS-CoV-2)	101326	ACE2: Spike S1-Biotin (SARS-CoV-2) Inhibitor Screening Assay Kit	79945
Spike Neutralizing Antibody (Clone G10xA5) (SARS-CoV-2)	101327		
Spike Neutralizing Antibody (Clone LxC1-G10) (SARS-CoV-2)	101246	Cathepsin B Inhibitor Screening Assay Kit	79590
Spike S1 Neutralizing Antibody (B.1.617.2, B.1.617.2.1, B.1.1.7, B.1.351, B.1.429, and P.1 Variants) (Clone C-A11) (SARS-CoV-2)	101024	Cathepsin L Inhibitor Screening Assay Kit	79591
Spike S1 Neutralizing Antibody (SARS-CoV-2) (Clone: 414-1)	100793	Fluoro-Verse™ ACE2 Inhibitor Assay Kit	78847
Spike S1 Neutralizing Antibody (SARS-CoV-2) (Clone: 414-2)	100792	Furin Protease Assay Kit	78040
Spike S1 Neutralizing Antibody (VHH), Fc-fusion (IgG1), Avi-Tag (SARS-CoV-1)	100784	IL-6:IL-6R Inhibitor Screening Assay Kit	78027
Spike S1 Neutralizing Antibody (VHH), Fc-fusion (IgG1), Avi-Tag (SARS-CoV-1), Biotin-labeled	100785	Papain-like Protease (SARS-CoV-2) Assay Kit: Deubiquitinase Activity	79996
Spike Trimer Neutralizing Antibody (B.1.617.2, B.1.617.2.1, WT and B.1.1.7 Variants) (Clone hC-A11) (SARS-CoV-2)	101061	Papain-like Protease (SARS-CoV-2) Assay Kit: Protease Activity	79995
		RdRp (SARS-CoV-2) TR-FRET Assay Kit	78553
		SARS-CoV-1 Spike Trimer (S1+S2):ACE2 Inhibitor Screening Colorimetric Assay Kit	78012
Assay Kit Components			
3CL Protease Fluorogenic Standard	78006	SARS-CoV-2 IgG Detection Kit (Colorimetric Anti-Spike S1 RBD IgG detection)	79985
Biochemical Assay Kits		SARS-CoV-2 IgG Detection Kit (Colorimetric Trimer Anti-Spike IgG detection)	79975
3CL Protease (B.1.1.529, Omicron Variant) (SARS-CoV-2) Assay Kit	78350	SARS-CoV-2 Spike Trimer (S1+S2):ACE2 Inhibitor Screening Colorimetric Assay Kit	79999
3CL Protease (MERS-CoV) Inhibitor Screening Assay Kit	78278	Spike S1 (B.1.1.529 BA.1, Omicron Variant) (SARS-CoV-2): ACE2 TR-FRET Assay Kit	78358
3CL Protease (P252L) (SARS-CoV-2) Assay Kit	78839	Spike S1 (B.1.1.7, Alpha Variant) (SARS-CoV-2): ACE2 Inhibitor Screening Chemiluminescence Assay Kit	78154
3CL Protease (SARS-CoV-1) Assay Kit	78015	Spike S1 (B.1.1.7, Alpha Variant) (SARS-CoV-2): ACE2 Inhibitor Screening Colorimetric Assay Kit	78155
3CL Protease (T21I, A173V) (SARS-CoV-2) Assay Kit	78837	Spike S1 (B.1.1.7; Alpha Variant) (SARS-CoV-2): ACE2 TR-FRET Assay Kit	78282
3CL Protease (T21I, A173V, T304I) (SARS-CoV-2) Assay Kit	78836	Spike S1 (B.1.351; Beta Variant) (SARS-CoV-2): ACE2 TR-FRET Assay Kit	78287
3CL Protease (T21I, E166V) (SARS-CoV-2) Assay Kit	78835	Spike S1 (B.1.429; Epsilon Variant) (SARS-CoV-2): ACE2 TR-FRET Assay Kit	78292
3CL Protease (T21I, S144A) (SARS-CoV-2) Assay Kit	78834	Spike S1 (B.1.617 Variant) (SARS-CoV-2): ACE2 TR-FRET Assay Kit	78288
3CL Protease (T21I, T304I) (SARS-CoV-2) Assay Kit	78838	Spike S1 (B.1.617.1; Kappa Variant) (SARS-CoV-2): ACE2 TR-FRET Assay Kit	78283
3CL Protease, MBP-tagged (SARS-CoV-2) Assay Kit	79955	Spike S1 (B.1.617.2.1; Delta Plus Variant) (SARS-CoV-2): ACE2 TR-FRET Assay Kit	78295
		Spike S1 (B.1.617.2; Delta Variant) (SARS-CoV-2): ACE2 TR-FRET Assay Kit	78291
		Spike S1 (B.1.618 Variant) (SARS-CoV-2): ACE2 TR-FRET Assay Kit	78289

Biochemical Assay Kits, Buffers, Cell Lines, Inhibitors/Activators, Lentiviruses | Product Listing

Biochemical Assay Kits	Catalog #	Cell Lines	Catalog #
Spike S1 (K417T, E484K, N501Y) (SARS-CoV-2): ACE2 TR-FRET Assay Kit	78293	ACE2 - CHO Recombinant Cell Line	79959
Spike S1 (P.1; Gamma Variant) (SARS-CoV-2): ACE2 TR-FRET Assay Kit	78284	ACE2 - HEK293 Recombinant Cell Line	79951
Spike S1 (SARS-CoV-2): ACE2 Inhibitor Screening Colorimetric Assay Kit	79954	ACE2 - HeLa Recombinant Cell Line	79958
Spike S1 (Wild-Type) (SARS-CoV-2): ACE2 TR-FRET Assay Kit	78281	TMPRSS2 - Vero E6 Recombinant Cell Line	78081
Buffers	Catalog #	Inhibitors/Activators	Catalog #
Spike S1 RBD (B.1.1.529 BA.1, Omicron Variant) (SARS-CoV-2): ACE2 Inhibitor Screening Chemiluminescence Assay Kit	78357	Decanoyl-RVKR-CMK	78713
Spike S1 RBD (B.1.1.529 BA.1, Omicron Variant) (SARS-CoV-2): ACE2 Inhibitor Screening Colorimetric Assay Kit	78339	GC376	78013
Spike S1 RBD (B.1.1.7, Alpha Variant) (N501Y) (SARS-CoV-2): ACE2 Inhibitor Screening Chemiluminescence Assay Kit	78140	Lentiviruses	Catalog #
Spike S1 RBD (B.1.1.7, Alpha Variant) (N501Y) (SARS-CoV-2): ACE2 Inhibitor Screening Colorimetric Assay Kit	78133	ACE2 Lentivirus	79944
Spike S1 RBD (B.1.351, Beta Variant) (SARS-CoV-2): ACE2 Inhibitor Screening Chemiluminescence Assay Kit	78151	Bald Lentiviral Pseudovirion (eGFP Reporter)	79987
Spike S1 RBD (B.1.351, Beta Variant) (SARS-CoV-2): ACE2 Inhibitor Screening Colorimetric Assay Kit	78152	Bald Lentiviral Pseudovirion (Luc-eGFP Dual Reporter)	79988
Spike S1 RBD (B.1.617.2; Delta Variant) (SARS-CoV-2): ACE2 Inhibitor Screening Colorimetric Assay Kit	78277	Bald Lentiviral Pseudovirion (Luciferase Reporter)	79943
Spike S1 RBD (SARS-CoV-2): ACE2 Inhibitor Screening Assay Kit	79931	Spike (B.1.1.529 BA.1, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78349
Spike S1 RBD (SARS-CoV-2): ACE2 Inhibitor Screening Colorimetric Assay Kit	78018	Spike (B.1.1.529 BA.1, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (Luc Reporter)	78348
Spike S1-Biotin (SARS-CoV-2): ACE2 TR-FRET Assay Kit	79949	Spike (B.1.1.7, Alpha Variant) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78158
Spike Trimer (S1+S2) (B.1.1.529 BA.1, Omicron Variant) (SARS-CoV-2): ACE2 Inhibitor Screening Chemiluminescence Assay Kit	78369	Spike (B.1.1.7, Alpha Variant) (SARS-CoV-2) Pseudotyped Lentivirus (Luc Reporter)	78112
Spike Trimer (S1+S2) (B.1.1.529 BA.1, Omicron Variant) (SARS-CoV-2): ACE2 Inhibitor Screening Colorimetric Assay Kit	78365	Spike (B.1.351, Beta Variant) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78160
Spike Trimer (S1+S2) (B.1.1.7, Alpha Variant) (SARS-CoV-2): ACE2 Inhibitor Screening Colorimetric Assay Kit	78175	Spike (B.1.351, Beta Variant) (SARS-CoV-2) Pseudotyped Lentivirus (Luc Reporter)	78142
Spike Trimer (S1+S2) (B.1.351, Beta Variant) (SARS-CoV-2): ACE2 Inhibitor Screening Colorimetric Assay Kit	78174	Spike (B.1.429, Epsilon Variant) Pseudotyped Lentivirus (Luc Reporter)	78172
Spike Trimer (S1+S2) (B.1.617.2.1; Delta Plus Variant) (SARS-CoV-2): ACE2 Inhibitor Screening Colorimetric Assay Kit	78276	Spike (B.1.617 Variant) Pseudotyped Lentivirus (Luc Reporter)	78204
Spike Trimer (S1+S2) (B.1.617.2; Delta Variant) (SARS-CoV-2): ACE2 Inhibitor Screening Colorimetric Assay Kit	78275	Spike (B.1.617.1, Kappa Variant) Pseudotyped Lentivirus (Luc Reporter)	78205
Spike Trimer (S1+S2) (P.1; Gamma Variant) (SARS-CoV-2): ACE2 Inhibitor Screening Colorimetric Assay Kit	78274	Spike (B.1.617.2.1; Delta Plus Variant) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78219
TMPRSS2 Fluorogenic Assay Kit	78083	Spike (B.1.617.2.1; Delta Plus Variant) Pseudotyped Lentivirus (Luc Reporter)	78218
		Spike (B.1.617.2; Delta Variant) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78216
		Spike (B.1.617.2; Delta Variant) Pseudotyped Lentivirus (Luc Reporter)	78215
		Spike (B.1.618 Variant) Pseudotyped Lentivirus (Luc Reporter)	78206

Lentiviruses	Catalog #	Lentiviruses	Catalog #
Spike (B.1.621, Mu Variant) (SARS-CoV-2) Pseudotyped Lentivirus (Luc Reporter)	78618	Spike (SARS-CoV-2) Pseudotyped Lentivirus (Luciferase Reporter)	79942
Spike (BA.1.1, Omicron Variant R346K) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78624	Spike (XBB.1.16, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78785
Spike (BA.1.1, Omicron Variant R346K) (SARS-CoV-2) Pseudotyped Lentivirus (Luc Reporter)	78623	Spike (XBB.1.16, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (Luciferase Reporter)	78784
Spike (BA.2, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78626	Spike (XBB.1.5, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78737
Spike (BA.2, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (Luc Reporter)	78625	Spike (XBB.1.5, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (Luciferase Reporter)	78736
Spike (BA.2.12.1, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78646	Spike Variants (SARS-CoV-2) Pseudotyped Lentivirus Pack (Luciferase Reporter)	78616
Spike (BA.2.12.1, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (Luc Reporter)	78645	Spike(SARS-CoV-2) Pseudotyped Lentivirus (Luc-eGFP Dual Reporter)	79982
Spike (BA.2.86, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78982	TMRSS2 Lentivirus	78011
Spike (BA.2.86, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (Luciferase Reporter)	78980	Proteins	
Spike (BA.4/5, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78652	14-3-3 theta Protein, His-tag (Human)	79038
Spike (BA.4/5, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (Luc Reporter)	78651	3CL Protease (B.1.1.529, Omicron Variant), (SARS-CoV-2)	101328
Spike (BF.7, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78702	3CL Protease (Mpro), MBP-tag (SARS-CoV-2)	100707
Spike (BF.7, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (Luciferase Reporter)	78699	3CL Protease (P252L) (SARS-CoV-2)	101692
Spike (BQ.1, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78700	3CL Protease (SARS-CoV-2)	100823
Spike (BQ.1, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (Luciferase Reporter)	78697	3CL Protease (T21I, A173V) (SARS-CoV-2)	101683
Spike (BQ.1.1, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (Luciferase Reporter)	78701	3CL Protease (T21I, A173V, T304I), (SARS-CoV-2)	101679
Spike (D614G) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78035	3CL Protease (T21I, E166V) (SARS-CoV-2)	101671
Spike (D614G) (SARS-CoV-2) Pseudotyped Lentivirus (Luc Reporter)	78028	3CL Protease (T21I, S144A) (SARS-CoV-2)	101669
Spike (JN.1, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78983	3CL Protease (T21I, T304I) (SARS-CoV-2)	101685
Spike (JN.1, Omicron Variant) (SARS-CoV-2) Pseudotyped Lentivirus (Luciferase Reporter)	78981	3CL Protease, His-tag (SARS-CoV-1)	100807
Spike (K417T, E484K, N501Y) (SARS-CoV-2) Pseudotyped Lentivirus (Luc Reporter)	78143	3CL Protease, MBP-tag, His-tag (MERS-CoV)	100757
Spike (P.1, Gamma Variant) (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	78159	3CL Protease, MBP-tag, His-tag (SARS-CoV-1)	100739
Spike (P.1, Gamma Variant) (SARS-CoV-2) Pseudotyped Lentivirus (Luc Reporter)	78144	ACE2, Fc Fusion (IgG1), Avi-Tag	101199
Spike (SARS-CoV-1) Pseudotyped Lentivirus (eGFP Reporter)	78633	ACE2, Fc Fusion (IgG1), Avi-Tag, Biotin-Labeled HiP™	101200
Spike (SARS-CoV-1) Pseudotyped Lentivirus (Luc Reporter)	78614	ACE2, Fc Fusion (Monkey)	100701
Spike (SARS-CoV-2) Lentivirus	78010	ACE2, His-Avi-Tag, Biotin-labeled HiP™	100665
Spike (SARS-CoV-2) Pseudotyped Lentivirus (eGFP Reporter)	79981	ACE2, His-tag (Monkey)	100702

Proteins	Catalog #	Proteins	Catalog #
ACE2, His-Tag	11003	Spike S1 (16-685), Avi-His-tag (SARS-CoV-2)	100730
ACE2, His-Tag, Eu-labeled	100705	Spike S1 (16-685), Avi-His-Tag, Biotin-Labeled (SARS-CoV-2)	100731
Cathepsin B, His-tag	80001	Spike S1 (16-685), Fc fusion (SARS-CoV-2)	100688
Cathepsin L, His-tag	80005	Spike S1 (16-685), Fc Fusion, Avi-tag (SARS-CoV-2)	100719
DPP4, His-tag	80040	Spike S1 (16-685), Fc Fusion, Avi-tag, Biotin-labeled (SARS-CoV-2)	100720
IL6R, Fc-Fusion (IgG1)	100916	Spike S1 (B.1.1.529 BA.1, Omicron Variant), Avi-His-Tag, (SARS-CoV-2)	101333
Neuropilin-1, Avi-His-Tag	100870	Spike S1 (B.1.1.529 BA.1, Omicron Variant), Avi-His-Tag, Biotin-Labeled (SARS-CoV-2)	101334
Neuropilin-1, Avi-His-Tag, Biotin-labeled, HiP™	100911	Spike S1 (B.1.1.7, Alpha Variant), Avi-His-Tag (SARS-CoV-2)	101001
NSP10/NSP16 Complex (SARS-CoV-2)	100747	Spike S1 (B.1.351, Beta Variant), Avi-His-Tag (SARS-CoV-2)	100992
NSP7, His-tag (SARS-CoV-2)	100829	Spike S1 (B.1.429 Variant), Avi-His-Tag (SARS-CoV-2)	101130
NSP8, His-tag (SARS-CoV-2)	100830	Spike S1 (B.1.617.1; Kappa Variant), Avi-His-Tag, Biotin-Labeled (SARS-CoV-2)	101125
NSP8_NS P7/NSP12 (SARS-CoV-2) Complex	101466	Spike S1 (B.1.617.2, Delta Variant) Avi-His-Tag (SARS-CoV-2)	101151
Nucleocapsid Protein (B.1.1.529, Omicron Variant), Avi-His-Tag (SARS-CoV-2)	101319	Spike S1 (B.1.617.2, Delta Variant) Avi-His-Tag, Biotin-Labeled (SARS-CoV-2)	101152
Nucleocapsid Protein (B.1.1.7, Alpha Variant), Avi-His-Tag (SARS-CoV-2)	100986	Spike S1 (B.1.617.2.1, Delta Plus Variant) Avi-His-Tag (SARS-CoV-2)	101179
Nucleocapsid Protein (B.1.351, Beta Variant), Avi-His-Tag (SARS-CoV-2)	100985	Spike S1 (B.1.617.2.1, Delta Plus Variant) Avi-His-Tag, Biotin-Labeled (SARS-CoV-2) HiP™	101180
Nucleocapsid Protein (P.1, Gamma Variant), Avi-His-Tag (SARS-CoV-2)	100987	Spike S1 (B.1.618 Variant), Avi-His-Tag (SARS-CoV-2)	101126
Nucleocapsid Protein, Avi-His-tag (SARS-CoV-2)	100778	Spike S1 (K417T, E484K, N501Y), Avi-His-Tag (SARS-CoV-2)	101081
Nucleocapsid Protein, Avi-His-tag, Biotin-Labeled (SARS-CoV-2)	100779	Spike S1 (K417T, E484K, N501Y), Avi-His-Tag, Biotin-Labeled (SARS-CoV-2)	101082
ORF9b, GST-Tag (SARS-CoV-2)	100962	Spike S1 (P.1 Variant), Avi-His-Tag, Biotin-Labeled (SARS-CoV-2)	101080
PLP2, His-tag (HCoV-NL63)	81090	Spike S1 (P.1, Gamma Variant), Avi-His-Tag (SARS-CoV-2)	101079
PLPro (1541-1857), His-tag (SARS-CoV-1)	100903	Spike S1 RBD (B.1.1.7; Alpha Variant), Avi-His-Tag, Biotin-Labeled (SARS-CoV-2) HiP™	100999
PLPro (723-1037), His-tag (SARS-CoV-1)	81091	Spike S1 RBD (B.1.617 Variant), Avi-His-Tag (SARS-CoV-2) HiP™	101156
PLPro, His-Tag (SARS-CoV-2)	100735	Spike S1 RBD (B.1.617.2, Delta Variant), Avi-His-Tag (SARS-CoV-2) HiP™	101153
RNA Polymerase, FLAG-tag (SARS-CoV-2)	100729	Spike S1 RBD (B.1.617.2, Delta Variant), Avi-His-Tag, Biotin-Labeled (SARS-CoV-2) HiP™	101154
Spike RBD (B.1.1.7, Alpha Variant), Avi-His-Tag (SARS-CoV-2)	100977	Spike S1 RBD (B.1.617.2.1, Delta Plus Variant), Avi-His-Tag (SARS-CoV-2) HiP™	101181
Spike RBD (B.1.351, Beta Variant) Avi-His-Tag (SARS-CoV-2)	100978	Spike S1 RBD (B.1.617.2.1, Delta Plus Variant), Avi-His-Tag, Biotin-Labeled (SARS-CoV-2) HiP™	101182
Spike S1 (13-665), Fc Fusion, Avi-tag (SARS-CoV-2)	100678	Spike S1 RBD (B.1.618 Variant), Avi-His-Tag (SARS-CoV-2)	101158
Spike S1 (13-665), Fc fusion, Avi-tag, Biotin-Labeled (SARS-CoV-2)	100679	Spike S1 RBD (G476S), Avi-His-tag (SARS-CoV-2)	100868

Proteins	Catalog #	Proteins	Catalog #
Spike S1 RBD (K417T, E484K, N501Y), Avi-His-Tag (SARS-CoV-2)	100993	Spike Trimer (S1+S2) (BA.2.75.2, Omicron Variant+K444T), His-Tag (SARS-CoV-2)	101657
Spike S1 RBD (V367F), Avi-His-tag (SARS-CoV-2) HiP™	100769	Spike Trimer (S1+S2) (BA.2.75.2, Omicron Variant+V445P+F490S), His-Tag (SARS-CoV-2)	101658
Spike S1 RBD (V367F), Avi-His-tag Biotin-labeled (SARS-CoV-2)	100770	Spike Trimer (S1+S2) (BA.4.6, Omicron Variant), His-Tag (SARS-CoV-2)	101664
Spike S1 RBD (V483A), Avi-His-tag (SARS-CoV-2)	100846	Spike Trimer (S1+S2) (BA.5, Omicron Variant), His-Tag (SARS-CoV-2)	101662
Spike S1 RBD, Avi-His-tag (SARS-CoV-2)	100696	Spike Trimer (S1+S2) (BF.7/BA.5.2.6/BF.11, Omicron Variant), His-Tag (SARS-CoV-2)	101663
Spike S1 RBD, Avi-His-tag, Biotin-labeled (SARS-CoV-2)	100697	Spike Trimer (S1+S2) (BN.1, Omicron Variant), His-Tag (SARS-CoV-2)	101659
Spike S1 RBD, Fc fusion (SARS-CoV-2)	100699	Spike Trimer (S1+S2) (BQ.1, Omicron Variant), His-Tag (SARS-CoV-2)	101665
Spike S1 RBD, Fc-Fusion, Avi-Tag (SARS-CoV-2)	100698	Spike Trimer (S1+S2) (BQ.1.1, Omicron Variant), His-Tag (SARS-CoV-2)	101666
Spike S1 RBD, Fc-Fusion, Avi-Tag, Biotin-labeled (SARS-CoV-2)	100695	Spike Trimer (S1+S2) (BR.2.1, Omicron Variant), His-Tag (SARS-CoV-2)	101715
Spike S1 RBD, His-Avi-Tag, Biotin-Labeled (SARS-CoV-2)	100937	Spike Trimer (S1+S2) (CA.3.1, Omicron Variant), His-Tag (SARS-CoV-2)	101704
Spike S1 RBD, Mouse Fc-fusion (SARS-CoV-2)	100684	Spike Trimer (S1+S2) (CH.1.1, Omicron Variant), His-Tag (SARS-CoV-2)	101703
Spike S1 RBD-Nucleocapsid Protein Chimera (SARS-CoV-2)	100938	Spike Trimer (S1+S2) (D614G), His-Tag (SARS-CoV-2)	100810
Spike S1, Avi-His-Tag, iFluor-488-labeled (SARS-CoV-2)	100936	Spike Trimer (S1+S2) (K417T, E484K, N501Y), His-Tag (SARS-CoV-2)	100988
Spike S2, Fc-Tag (SARS-CoV-2)	100895	Spike Trimer (S1+S2) (P.1 Variant), His-Tag (SARS-CoV-2)	100989
Spike Trimer (S1+S2) (B.1.1.529 BA.1, Omicron Variant), His-Tag (SARS-CoV-2)	101343	Spike Trimer (S1+S2) (XBB, Omicron Variant), His-Tag (SARS-CoV-2)	101660
Spike Trimer (S1+S2) (B.1.1.7, Alpha Variant), His-Tag (SARS-CoV-2)	510334	Spike Trimer (S1+S2) (XBB.1, Omicron Variant), His-Tag (SARS-CoV-2)	101661
Spike Trimer (S1+S2) (B.1.351, Beta Variant), His-Tag (SARS-CoV-2)	510333	Spike Trimer (S1+S2) (XBB.1.16, Omicron Variant), His-Tag (SARS-CoV-2)	101814
Spike Trimer (S1+S2) (B.1.351, Beta Variant, Δ242-244) (SARS-CoV-2)	101091	Spike Trimer (S1+S2) (XBB.1.16.1, Omicron Variant), His-Tag (SARS-CoV-2)	101815
Spike Trimer (S1+S2) (B.1.429, Epsilon Variant) His-Tag (SARS-CoV-2)	101057	Spike Trimer (S1+S2) (XBB.1.31, Omicron Variant), His-Tag (SARS-CoV-2)	101816
Spike Trimer (S1+S2) (B.1.617 Variant), His-Tag (SARS-CoV-2)	101143	Spike Trimer (S1+S2) (XBB.1.5, Omicron Variant), His-Tag (SARS-CoV-2)	101677
Spike Trimer (S1+S2) (B.1.617.1, Kappa Variant), His-Tag (SARS-CoV-2)	101144	Spike Trimer (S1+S2) (XBF, Omicron Variant), His-Tag (SARS-CoV-2)	101702
Spike Trimer (S1+S2) (B.1.617.2.1, Delta Plus Variant), His-Tag (SARS-CoV-2)	101165	Spike Trimer (S1+S2), His-tag (HCoV-NL63)	100788
Spike Trimer (S1+S2) (B.1.617.2; Delta Variant), His-Tag (SARS-CoV-2)	101147	Spike Trimer (S1+S2), His-tag (SARS-CoV-1)	100789
Spike Trimer (S1+S2) (B.1.618 Variant), His-Tag (SARS-CoV-2)	101145	Spike Trimer (S1+S2), His-Tag (SARS-CoV-2)	100728
Spike Trimer (S1+S2) (BA.2, Omicron Variant), His-Tag (SARS-CoV-2)	101701	Spike Trimer (S1+S2), His-tag, Eu-labeled (SARS-CoV-2)	100894
Spike Trimer (S1+S2) (BA.2.3.20, Omicron Variant), His-Tag (SARS-CoV-2)	101654		
Spike Trimer (S1+S2) (BA.2.75, Omicron Variant), His-Tag (SARS-CoV-2)	101655		
Spike Trimer (S1+S2) (BA.2.75.2, Omicron Variant), His-Tag (SARS-CoV-2)	101656		

Substrates	Catalog #
3CL Protease (SARS-CoV-1 / SARS-CoV-2) Substrate	79952

Substrates	Catalog#
3CL Protease (MERS-CoV) Substrate	78021
HRP Colorimetric Substrate	79651
PLPro Substrate	79997

VSVs	Catalog#
Bald VSV Delta G (Luciferase Reporter)	78636
Spike (B.1.617.2, Delta Variant) (SARS-CoV-2) Pseudotyped VSV Delta G (Luciferase Reporter)	78640
Spike (BA.1.1, Omicron Variant) (SARS-CoV-2) Pseudotyped VSV Delta G (Luciferase Reporter)	78641
Spike (BA.2, Omicron Variant) (SARS-CoV-2) Pseudotyped VSV Delta G (Luciferase Reporter)	78635
Spike (BA.2.12.1, Omicron Variant) (SARS-CoV-2) Pseudotyped VSV Delta G (Luciferase Reporter)	78643
Spike (BA.4/5, Omicron Variant) (SARS-CoV-2) Pseudotyped VSV Delta G (Luciferase Reporter)	78644
Spike (D614G) (SARS-CoV-2) Pseudotyped VSV Delta G (Luciferase Reporter)	78642
Spike (SARS-CoV-2) Pseudotyped VSV Delta G (Luciferase Reporter)	78637
VSV-G Pseudotyped VSV Delta G (Luciferase Reporter)	78634



FIND A TRUSTED PARTNER FOR YOUR NEXT PROJECT



Ordering Information
orders@bpsbioscience.com



Technical Support
support@bpsbioscience.com



US Sales Support
sales-team@bpsbioscience.com



International Sales Support
international@bpsbioscience.com

BPS Bioscience, Inc.
6405 Mira Mesa Blvd, Suite 100
San Diego, CA 92121
Tel: 858-202-1401

bpsbioscience.com

