

**Newsletter April/May 2020**

**BIOSCIENTIFIC ARE CONSTANTLY SOURCING TOP QUALITY PRODUCTS**

**– PLEASE ENQUIRE FOR THAT “HARD TO FIND” PRODUCT! –**



**Jena Bioscience**  
Building Blocks of Life



## **Validated Covid-19 Testkit and Virus RNA Prep Kit available**

After an increased demand due to the Corona Pandemic we can now offer:

- Viral RNA+DNA Preparation Kit
- Complete validated Covid-19 test kit
- Mastermixes and raw materials for development of Covid-19 test

## **CLICK labeling: Pyrimidyl tetrazines make unreactive alkenes get a move on**

- Pyrimidyl tetrazines are the compounds of choice to tackle poor dienophiles under physiological conditions.



## TAKING THE STING OUT OF COVID-19

### STING AGONIST cGAMP IS A POTENT VACCINE ADJUVANT

We know the cGAS–STING pathway is a key activator of the innate immune response to cellular damage or microbial infection. Cyclic GMP-AMP Synthase (cGAS) catalyzes the formation of cyclic GMP-AMP (cGAMP) in response to the presence of foreign DNA in the cytoplasm. Cyclic GAMP is a potent activator of the immune response in eukaryotes, where infected cells can induce an antiviral response in effector cells through direct transfer of cGAMP by inclusion in enveloped virions<sup>1,2</sup>.

Recently, studies have shown that activation of the immune response by cGAMP is an effective strategy for boosting the response to vaccination. This makes cGAMP a potential new vaccine adjuvant for viral diseases like influenza and COVID-19. A recent study by Wang et al. reports cGAMP adjuvants can stimulate a potent immune response<sup>3</sup>. Additionally, cGAMP induces significantly higher CD4<sup>+</sup> and CD8<sup>+</sup> T cell responses in immunized mice, and up-regulates IFN- $\gamma$  expression in lung tissue of mice in the early stages of a virus challenge. As such, viral vectors loaded with cGAMP is a promising potential vaccine strategy for the novel coronavirus and other emerging pandemics.

Arbor Assays developed the first immunoassay for measuring 2',3'-Cyclic GAMP ELISA ([K067-H1/H5, H1D](#)) in 2019, and our newest assay, 3',3'-Cyclic GAMP ELISA ([K073-H1/H5](#)), accurately measures 3',3'-cGAMP in bacterial or eukaryotic cell lysates using a simple and convenient ELISA format. These innovative and valuable tools will facilitate further understanding of the role cyclic dinucleotides play in health and disease.

The world's first full length S protein with trimer structure verified by MALS

**Acro** BIOSYSTEMS

Spike  
Membrane  
Envelope  
Nucleocapsid  
RNA

**2019-nCoV Full Length Trimer S Protein**

**Inhibitor Screening Kit**

S-RBD ACE2-biotin SA-HRP 2019-nCoV Inhibitor

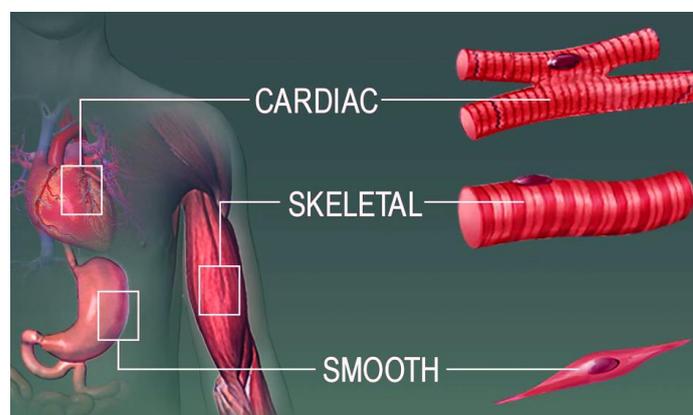
**Acro** BIOSYSTEMS

Spike  
Membrane  
Envelope  
Nucleocapsid  
RNA

**HEK293 expressed 2019-nCoV proteins with bioactivity verified by SPR and BLI**

- ★ SPR/ BLI/ ELISA protocols are offered for free.
- ★ Buy a large size of ACE2, S, S1 and other proteins can get a small size one for free.
- ★ No extra shipping cost if dry ice shipping is needed for liquid products.

See website for blogs and more information on these topics and many others;





**alzet**<sup>®</sup>  
OSMOTIC PUMPS



# SUCCESS IS IN THE DELIVERY

No More Injections

- + Implantable infusion pumps for convenient dosing
- + Over 40 years of proven quality and reliable results
- + Small sizes available for mice and rats
- + Simple design and easy to use

**BIO Scientific pty. ltd.**

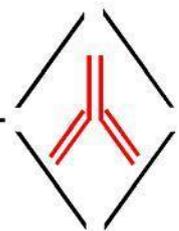
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