

Anti-2019-nCoV Spike Protein Neutralizing Nanobody (NBX20038)

Catalog No: C19S1-652L

The SARS-CoV-2 receptor-binding domain (RBD) of the spike protein facilitates the binding of the virus to the human angiotensin-converting enzyme 2(hACE2) for cellular entry. As the virus mutates, it creates variants presenting key mutations on its Spike protein evading the host neutralizing antibodies. Single domain heavy chain antibodies generated in llama have shown to recognize these new variants and block the binding of SARS-CoV-2/ ACE2 through neutralization. SignalChem's recombinant llama-VHH have been engineered to study neutralization of SARS-CoV-2 and detect the 2019-nCoV Spike Protein.

Unique Selling Points



Neutralizing activity validated for wild type RBD



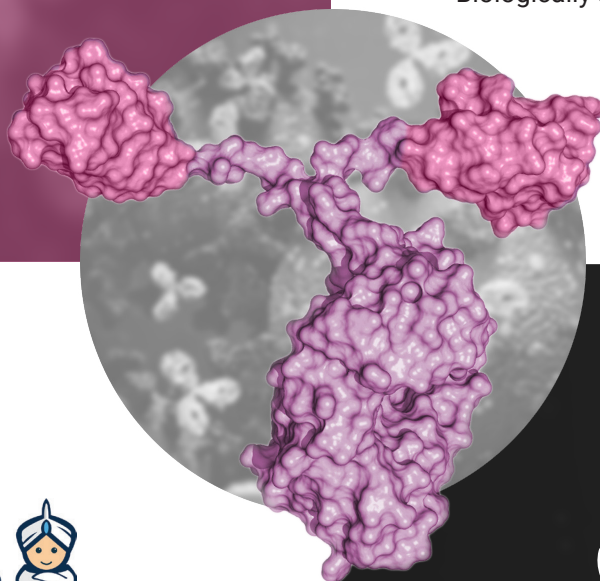
Recognizes SARS-CoV-2 S protein



Biologically active



Neutralizing activity validated for N501Y variant



Competitors



Target Customers



Biopharma developing Anti-SARS-CoV-2 therapies



University researchers studying SARS-CoV-2 neutralization



Scientists developing diagnostic tests



Biotech companies developing vaccines



Government research organizations

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The spike glycoprotein (S) of coronavirus is a type I transmembrane protein containing two subunits, S1 and S2, and is a key component in binding with the hACE2. As the virus mutates, the new variants evade host's neutralizing antibody response, making the new variants more potent. Recombinant nanobodies derived from camelids can target unique epitopes even on the RBDs of new variants, which are harder to be accessed by regular mAbs. SignalChem's recombinant llama VHH-Human IgG Antibody have been generated in llama for studying neutralization of SARS-CoV-2 and detection of 2019-nCoV Spike Protein.

Applications



COVID19 ELISAs



Nanobody based
Therapies R&D



COVID19 Protein
Arrays

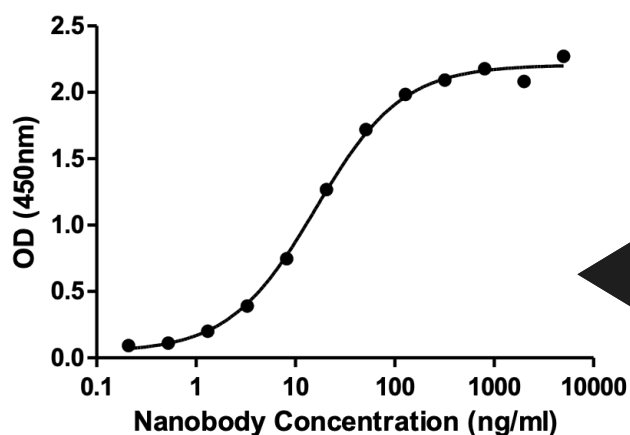


Diagnostic kits R&D

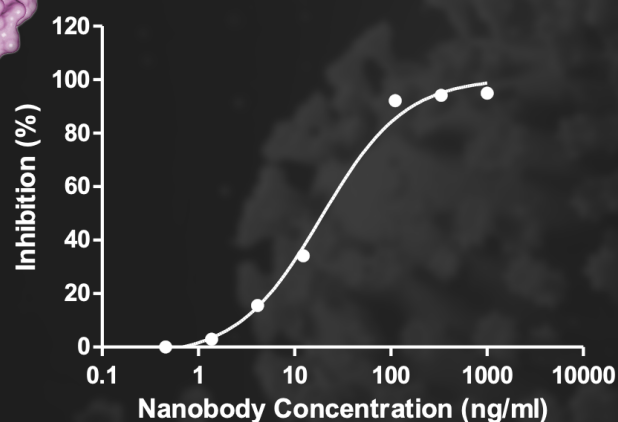


Vaccine Research

Assay Data



Binding ability measured in a functional ELISA. Anti 2019-nCoV Spike Protein Neutralizing Nanobody (C19S1-642HL) binds 2019-nCoV Spike protein RBD.



Inhibitory activity of Anti 2019-nCoV Spike Protein Neutralizing Nanobody (C19S1-642HL) against 2019-nCoV RBD binding to ACE2(19-740) protein determined using ELISA.