

CFA0688

Aptamer to COVID-19 Spike Protein

Selection Information

Target for Selection: SARS-CoV-2 (2019-nCoV) Spike S1+S2 ECD-His Recombinant Protein (Baculovirus Host expressed), Sino Biological Cat.# 40589-V08B1

Number of DNA Nucleotides: 32

Aptamer was selected from a randomized Base Pair natural DNA library against the target molecule. Proprietary methods were used to select this specific aptamer sequence.

Affinity Determination

Affinity Determination Method: BioLayer Interferometry

Buffer Used for Affinity Determination: 1x PBS, 1mM MgCl₂, 10% human saliva

Average K_D: 2.23 nM (R² = 0.9983)

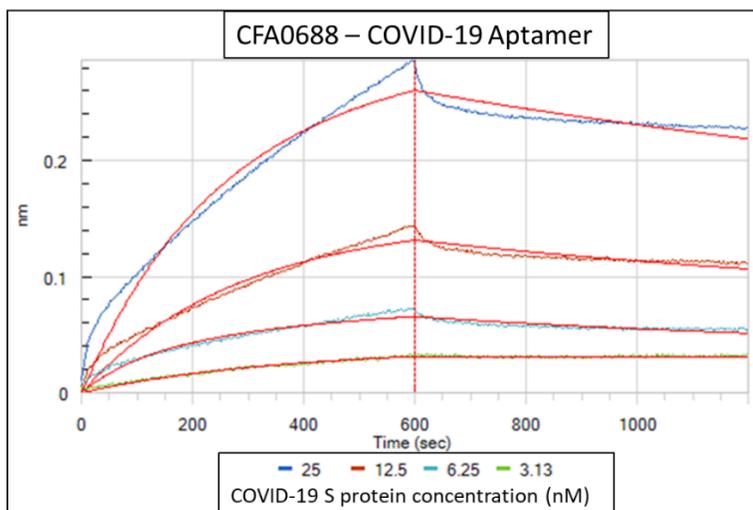


Figure 1. COVID-19 S Protein Binding

The target used for affinity measurement was expressed in HEK293 cells (Amsbio Cat.# AMS.SPN-C52H4)

Aptamer Folding

For optimal binding, aptamers must be folded into their tertiary structure prior to use. Dilute to 10x working concentration in Folding Buffer, heat to 90-95°C for 5 minutes, then cool to room temperature (~15 minutes). Final application buffers used for dilution of aptamer to working concentration and washing should contain 1 mM MgCl₂.