Anti-SARS-CoV-2 Spike (NTD) Antibody (Clone# 4A8)

CATALOG NO.: **A2269-100 (100 µg)**

BACKGROUND DESCRIPTION: The Coronavirus spike protein (S) is a type I membrane fusion protein required for viral infection and pathogenesis. It is synthesized as a precursor protein between 1200 to 1300 amino acids. The mature protein is a heavily glycosylated trimer with 21-35 glycosylation sites. Upon cleavage by host proteases, it yields 2 subunits, S1 and S2. The S1 subunit consists of 672 amino acids and is divided into 4 domains: an N-terminal domain, a C-terminal domain (also called receptor binding domain, RBD), and 2 subdomains SD1 and SD2. The S2 subunit consists of 588 amino acids and is divided into 4 domains: an N-terminal hydrophobic fusion peptide (FP), 2 heptad repeats (HR1 and HR2), a transmembrane domain (TM), and a cytoplasmic tail. The function of NTD is not clearly understood. Previous studies demonstrated that NTD could identify sugar moieties for initial attachment and thus aid in viral infection. A recent study showed that monoclonal antibody 4A8 did not block the interaction between ACE2 and Spike (S) protein but showed a high neutralization activity against SARS-CoV-2 in vitro by binding to the NTD of the Spike protein.

ALTERNATE NAMES: Spike protein, COVID19, COVID 19, S protein, SARS-CoV S protein, S glycoprotein, E2, Peplomer protein, Spike protein S1, SARS Coronavirus, SARS-CoV-2, SARS CoV 2, 2019-nCoV, Spike protein S2, S2 protein, NTD, N-terminal domain, 4A8

ANTIBODY TYPE: Monoclonal

CLONE: 4A8

HOST/ISOTYPE: Recombinant / Human IgG

IMMUNOGEN: Recombinant SARS-CoV-2 Spike protein NTD

FORM: Liquid

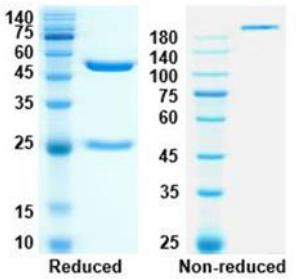
FORMULATION: In PBS, pH 7.5

SPECIES REACTIVITY: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), SARS-CoV

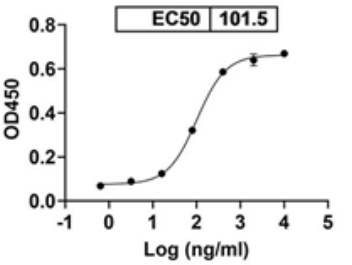
STORAGE CONDITIONS: Store at -20 to -80°C. Avoid repeated freeze/thaw cycles

APPLICATIONS AND USAGE: ELISA 1:5000 - 1:10,000

This information is only intended as a guide. The optimal dilutions must be determined by the user



SDS-PAGE analysis was performed to assess the purity and integrity of Anti-SARS-CoV-2 Spike (NTD) Antibody (Clone# 4A8)



Direct ELISA shows that Anti-SARS-CoV-2 Spike (NTD) Antibody (Clone# 4A8) can bind to immobilized Spike NTD (EC50 = 101.5 ng/ml)

RELATED PRODUCTS:
Anti-SARS-CoV-2 Spike S1 Antibody (A3000)
Anti-IL-6 receptor (Tocilizumab), Human IgG1 Antibody (A1447)
Anti-TNF alpha (Infliximab), Human IgG1 Antibody (A1097)
Anti-SARS-CoV-2 NP Antibody (Clone# 6F10) (A2060)

FOR RESEARCH USE ONLY! Not to be used on humans.