

Product Sheet



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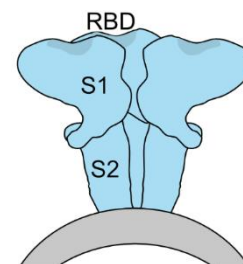
www.qvquality.com
KvK: 30274082
VAT: 8215.17.168
NL88 RABO0153194936

SARS-CoV-2 spike protein

Catalogue no.: Q104c
Clone name: MCV-4C3

Product: VHH directed against SARS-CoV-2 spike protein

Target: The disease COVID-19 is caused by the virus SARS-CoV-2 and responsible for the global pandemic starting in 2020. SARS-CoV-2 is a spherical-shaped positive-strand RNA virus.¹ The SARS-CoV-2 spike protein (S protein) is a homotrimeric transmembrane glycoprotein that is one of the major protein complexes on the virus and which plays an important role in infection into host cells.² Each spike protein monomer is a 140 kDa protein with an N-terminal S1 domain, a membrane-proximal S2 domain, a transmembrane domain, and a C-terminal domain.² Via the receptor binding domain (RBD) within the S1 domain, the spike proteins bind to Angiotensin-Converting Enzyme 2 (ACE2) receptors on host cells, which is then followed by fusion of the virus with the membrane.² By interfering with the interaction of the RBD with ACE2, infection can be blocked.³ Therefore, S1 and RBD in particular, is an interesting therapeutic target for COVID-19.³



Source: Recombinant monoclonal VHH (Llama glama), purified from *S.cerevisiae* using affinity chromatography. Immunization with and phage-display selection on recombinant protein using total elution.

Specificity: SARS-CoV-2 spike protein domain S1.

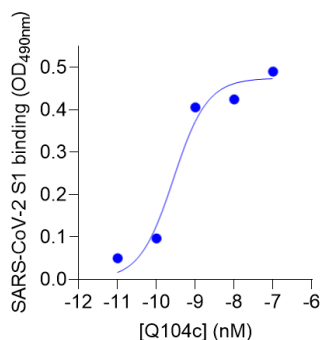
Formulation: 0.2 µm filtered solution in PBS.

Mol. Weight: 14.1 kDa
Ext. Coeff. (ε): 21555 M⁻¹ cm⁻¹
A₂₈₀ at 1g/L: 1.5

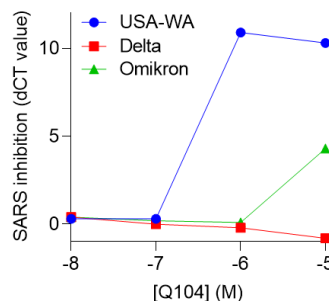
Storage: Shipped on blue ice. Store at 4 °C or -20 °C (aliquots). Addition of 0.02% sodiumazide is optional.

Applications: ELISA, viral neutralisation.

Examples:



Binding of Q104c to recombinant SARS-CoV-2 spike protein in ELISA.



Inhibition of SARS-CoV-2 infection by Q104.

References:

- 1 Sharma et al., (2021) Viruses. 13(2):202
- 2 Khailany et al., (2020) Gene Reports. 100682
- 3 Walls et al., (2020) Cell. 180:281-292
- 4 Salvatori et al., (2020) J Transl Med 18:222