

# Product Sheet



# QVQ

QUALITY IN ANTIBODIES

Yalelaan 1  
3584 CL Utrecht  
The Netherlands  
+31 30 253 3421

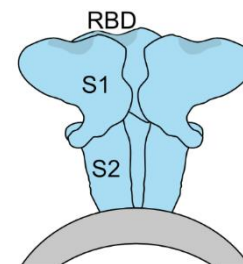
www.qvquality.com  
KvK: 30274082  
VAT: 8215.17.168  
NL88 RABO0153194936

## SARS-CoV-2 spike protein

**Catalogue no.:** Q103c  
**Clone name:** MCV-4F6

**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.<sup>1</sup> 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.<sup>2</sup> 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.<sup>2</sup> 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.<sup>2</sup> By interfering with the interaction of the RBD with ACE2, infection can be blocked.<sup>3</sup> Therefore, S1 and RBD in particular, is an interesting therapeutic target for COVID-19.<sup>3</sup>



**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.

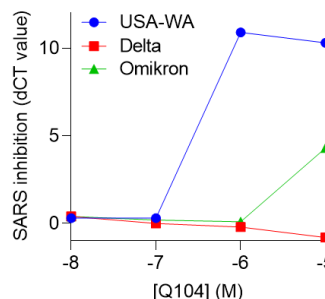
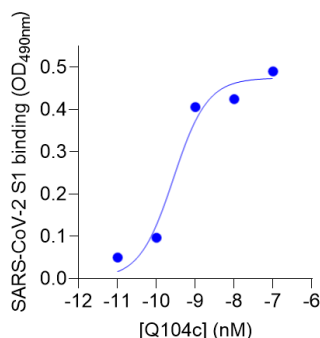
**Formulation:** 0.2 µm filtered solution in PBS.

**Mol. Weight:** 14.7 kDa  
**Ext. Coeff. (ε):** 18575  
**A<sub>280</sub> at 1g/L:** 1.3

**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 Q103c to recombinant SARS-CoV-2 spike protein in ELISA (left). Inhibition of SARS-CoV-2 infection by Q103 (right)

### 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