

Product Sheet



QVQ

QUALITY IN ANTIBODIES

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

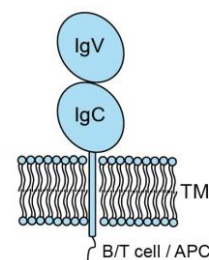
www.qvquality.com
KvK: 30274082
VAT: 8215.17.168
NL88 RABO0153194936

CTLA-4 counter-receptor B7.1 (CD80)

Catalogue no.: Q98c
Clone name: WC8-2F8

Product: VHH directed against CD80

Target: CD80, also called CTLA-4 counter-receptor B7., BB1 or B7 (UniProtKB P33681) is a costimulatory molecule essential for T-lymphocyte activation. It is a type I membrane protein from the immunoglobulin protein family with immunoglobulin-like extracellular domains consisting of a constant and variable subdomain. It is closely related to CD86 and both serve as a ligand for CD28 or CTLA-4. Whereas T-cell proliferation and cytokine production is induced by interaction with CD28, interaction of CD80 with CTLA-4 actually inhibits T-cell activation. CD80 is expressed on activated T-cells and activated B-cells but predominantly on antigen presenting cells like dendritic cells and macrophages. Surface expression of CD80 in macrophages is a marker for M1 polarization, a classically activated macrophage involved in promoting inflammation.¹⁻³



Source: Recombinant monoclonal VHH (Llama glama), purified from *S.cerevisiae*. Immunization with cells. Phage-display selection on recombinant CD80 using total elution.

Specificity: Human CD80.

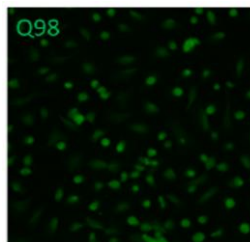
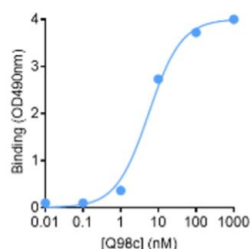
Formulation: 0.2 µm filtered solution in PBS.

Mol. Weight: 15.8 kDa
Ext. Coeff. (ε): 28545
A₂₈₀ at 1g/L: 1.8

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

Applications: ELISA, IF

Examples:



Left: Binding of Q98 to immobilized recombinant CD80 in ELISA. Bound VHH were detected with rabbit-anti-VHH (QE19), followed by donkey-anti-rabbitHRP and OPD as substrate. Right: Binding of Q98 to human M1 polarized macrophages. Bound VHH were detected with anti-VHH and Alexa488-conjugated secondary antibodies.

References:

- 1 [Greenwald, R.J. et al., \(2015\) Annu Rev Immunol, 23:515-48](#)
- 2 [Peach, R.J. et al., \(1995\) J Biol Chem, 270\(36\):21181-7](#)
- 3 [Bertani, F.R. et al. \(2017\) Sci Rep, 7\(1\):8965](#)