

Product Sheet



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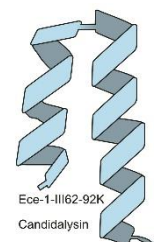
Yalelaan 1
3584 CL Utrecht
The Netherlands
+31 30 253 3421

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

Candidalysin

Catalogue no.: Q99c
Clone name: CAL-H1

Product: VHH directed against Candidalysin
Target: Candidalysin, also known as Ece1-III62-92K, is a 31-amino acid peptide toxin secreted by *Candida albicans*. In a large part of the human population, *Candida albicans* is a commensal fungus, but it can also cause serious mucosal and sometimes life-threatening systemic infections. Proteolytic cleavage of the larger protein Ece1 (extent of cell elongation 1, UniprotKB Q07730), creates the cytolytic pore-forming peptide toxin candidalysin, which is released upon hyphal morphogenesis of the pathogenic yeast, and it can intercalate in and damage host membranes of mostly epithelial cells. This damage triggers a calcium flux and a danger signaling pathway, which activates epithelial immunity.¹⁻⁴



Source: Recombinant monoclonal VHH (Llama glama), purified from *S. cerevisiae* using affinity chromatography. Immunization with yeast and filamentous whole cells of *Candida albicans* and phage-display selection on immobilized candidalysin peptide.⁵

Specificity: Candidalysin peptide from *Candida albicans*. Can neutralize candidalysin.⁵

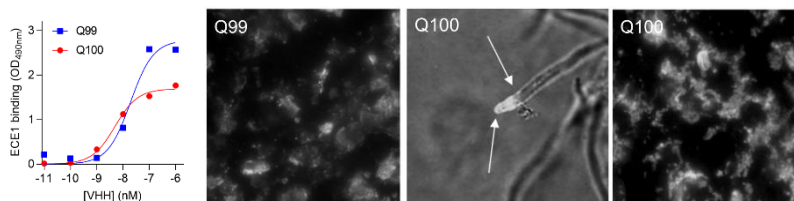
Formulation: 0.2 µm filtered solution in PBS. The products are equipped with a C-terminal C-Direct tag with an unpaired cysteine for directional conjugation.

Mol. Weight: 15.2 kDa
Ext. Coeff. (ε): 31650 M⁻¹ cm⁻¹
A₂₈₀ at 1g/L: 2.1

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

Applications: ELISA, Candidalysin neutralization

Examples:



Binding of Q99 and Q100 to recombinant ECE1 peptide in ELISA. Immunofluorescence microscopy image showing binding of Q99 or Q100 to a tip of a *candida albicans* hypha upon infection in endothelial cells (arrows, second image) or candidalysin-treated endothelial cells (right two images).⁴

References:

- 1 Richardson et al., (2018) mBio, 9(1):e02178-17
- 2 Brown et al., (2012) Science Translational Medicine, 4, 165rv113
- 3 Moyes et al., (2016) Nature, 532(7597):64-8
- 4 Mogavero et al., (2021) Cell Microbiol, 23(10):e13378
- 5 WO2020130838A2