Z-domain of protein A scaffold protein anti-Staphylococcus aureus

Product Information

Product Overview
This protein A specific binding protein (Z-domain of protein A) was investigated by an α-helix shuffling strategy. The primary scaffold protein was from a naive combinatorial library of the three-helix bundle Z domain derived from staphylococcal protein A. A hierarchical library was constructed through selective re-randomization of six amino acid positions in one of the two α-helices of the domain, making up the Taq DNA polymerase binding surface. After selections using monovalent phage display technology, second generation variants were identified having affinities (KD=20 nM) for protein A as determined by biosensor technology. It’s potential to be used in diagnostic, research and therapeutic applications.

Scaffold Name
Z-domain of protein A

Origin
Staphylococcal protein A

Core Structure
3-α helices

Variable Regions
13 Residues on first and second helix surface

Target
Protein A

Species Reactivity
Staphylococcus aureus

Expression Host
E. coli

Affinity Constant
20 nM

Applications
ELISA; IHC; Microscopy; FC; WB; FuncS

Target Information

Introduction
Protein A is a 42 kDa surface protein originally found in the cell wall of the bacterium Staphylococcus aureus. It is encoded by the spa gene and its regulation is controlled by DNA topology, cellular osmolarity, and a two-component system called ArlS-ArlR

Alternative Names
Staphylococcal protein A; Z-domain of protein A; repA; replication initiator protein A; protein A

Gene ID
17363263

UniProt ID
Q8VVS7

Related Products

Cat #
SZA-L238

Description
Z-domain of protein A scaffold protein anti-Staphylococcus aureus Protein A Z domain
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