

Table S3. Antigens in multiplex panel for assessment of immunoglobulin binding

| | Antigen | Abbreviation | Source | GenBank Locus ¹ |
|---|--|---------------------------------|----------------------------------|----------------------------|
| Positive controls | | | | |
| | Tetanus Toxoid | Tet Tox, TT | Enzo Life Sciences | |
| | Phosphorylcholine-16-BSA | PC16-BSA | Biosearch Technologies | |
| | Phosphorylcholine-12-BSA | PC12-BSA | Biosearch Technologies | |
| | Phosphorylcholine-4-BSA | PC4-BSA | Biosearch Technologies | |
| Ig-binding | | | | |
| | anti-human IgG (Fc-gamma Specific) | anti-hIgG, α -hIgG | Jackson Immunoresearch | |
| | SpA domain D- WT (5x) ² | SpAD-WT5x | G.J.S., D.N.H. (NYU) | |
| | SpA domain D- FcNull (5x) ³ | SpAD-FcNull5x | G.J.S., D.N.H. (NYU) | |
| Negative controls | | | | |
| | Bovine Serum Albumin | BSA | Sigma Aldrich | |
| | Human Serum Albumin | HSA | Sigma Aldrich | |
| | Azobenzenearsonate | ABA | Biosearch Technologies | |
| <i>S. aureus</i> protein fractions | | | | |
| | surface extract | | V.J.T. (NYU) | |
| | cytoplasmic extract | | V.J.T. (NYU) | |
| | Exoproteins | | V.J.T. (NYU) | |
| <i>S. aureus</i> Exotoxins | | | | |
| | Leukocidin S | LukS-PV | V.J.T. (NYU) | SAUSA300_1382 |
| | Leukocidin E | LukE | V.J.T. (NYU) | NWMN_1719 |
| | Hemolysin-gamma A | HlgA | V.J.T. (NYU) | NWMN_2318 |
| | Hemolysin-gamma C | HlgC | V.J.T. (NYU) | NWMN_2319 |
| | Leukocidin F | LukF-PV | V.J.T. (NYU) | SAUSA300_1381 |
| | Leukocidin D | LukD | V.J.T. (NYU) | NWMN_1718 |
| | Hemolysin-gamma B | HlgB | V.J.T. (NYU) | NWMN_2320 |
| | Leukocidin AB cc8 | LukABcc8 | V.J.T. (NYU) | NWMN_1928, 1927 |
| | Leukocidin AB cc30 | LukABcc30 | V.J.T. (NYU) | SAR2108, 2107 |
| | Alpha Toxin (Alpha Hemolysin) | Hla | V.J.T. (NYU) | NWMN_1073 |
| | Alpha Toxin (Alpha Hemolysin) H35L mutant | Hla (H35L) | V.J.T. (NYU) | |
| | β -Toxin (Beta Toxin) | β -Toxin | V.J.T. (NYU) | SACOL2003 |
| <i>S. aureus</i> superantigens or Superantigen-like proteins | | | | |
| | Staphylococcal Enterotoxin B (chemically inactivated) | SEB (<i>S. aureus</i>) | BEI Resources | SACOL0907 |
| | Staphylococcal Enterotoxin B (recombinant- inactive mutant, produced in <i>E. coli</i>) | SEB (τ , <i>E. coli</i>) | BEI Resources | SACOL0907 |
| | Staphylococcal Enterotoxin G | SEG | V.J.T. (NYU) | SAR1916 |
| | Staphylococcal Enterotoxin I | SEI | V.J.T. (NYU) | SAR1919 |
| | Staphylococcal Enterotoxin M | SEM | V.J.T. (NYU) | SAR1920 |
| | Staphylococcal Enterotoxin N | SEN | V.J.T. (NYU) | SAR1917 |
| | Staphylococcal Enterotoxin O | SEO | V.J.T. (NYU) | SAR1921 |
| | Staphylococcal Enterotoxin U | SEU | V.J.T. (NYU) | SAR1918 |
| <i>S. aureus</i> Phenol Soluble Modulins | | | | |
| | Phenol Soluble Modulin alpha 2 | PSMa2 | I.P.T. (Vanderbilt) | SAUSA300_0424.3 |
| | Phenol Soluble Modulin alpha 3 | PSMa3 | I.P.T. (Vanderbilt) | SAUSA300_0424.2 |
| | Phenol Soluble Modulin alpha 4 | PSMa4 | I.P.T. (Vanderbilt) | SAUSA300_0424.1 |
| | Phenol Soluble Modulin alpha 4-variant | PSMa4-variant | I.P.T. (Vanderbilt) | |
| Other <i>S. aureus</i> proteins | | | | |
| | Nuclease 1 -or- thermonuclease 1 | Nuc1 | V.J.T. (NYU) | SAUSA300_0776 |
| | Staphylokinase | Sak | V.J.T. (NYU) | SAUSA300_1922 |
| | SspB | SspB | V.J.T. (NYU) | SAUSA300_0950 |
| | SaeS Δ 92 | SaeS Δ 92 | V.J.T. (NYU) | |
| | Rot | Rot | V.J.T. (NYU) | |
| Other non-staphylococcal microbial antigens | | | | |
| | Pneumococcal polysaccharide 12 | Pneumo ps12 | ATCC | |
| | Pneumococcal polysaccharide 23 | Pneumo ps23 | ATCC | |
| | Poly N-acetyl glucosamine | PNAG | G.B. Pier (Harvard) | |
| | Pneumococcal Cell Wall Polysaccharide | Pneumo CWPS | Statens Serum Institut (Denmark) | |
| | <i>S. pneumoniae</i> pneumolysin | PLY | MyBiosource.com | |
| | <i>S. pyogenes</i> ArcA | ArcA | lab antigen stock | |
| | <i>S. pyogenes</i> superantigen | SP superantigen | lab antigen stock | |

Footnotes:

- Sequences obtained from reference strain genomes with accession numbers as follows: FPR3757 (SAUSA300; NC_007793.1), Newman (NWMN; NC_009641.1), MRSA252 (SAR; BX571856.1), COL (SACOL; NC_002951.2).
- SpA domain D- WT (5x) is a concatamer of five copies of SpA domain D.
- SpA domain D- FcNull (5x) is a concatamer of five copies of SpA domain D with three point mutations in each domain; in helix I, Q12K and Q13K, and in helix II N31A. These mutations destroy the Fc gamma-binding site and this construct therefore has only the non-immune binding of VH3-Fab containing IgG. References: Kim, Emolo, DeDent, Falugi, Missiakas & Schneewind (2012) *Infect Immun* 80: 3460-3470; and Cedergren, Andersson, Jansson, Uhlen & Nilsson (1993) *Protein Eng.* 6(4): 441-8.