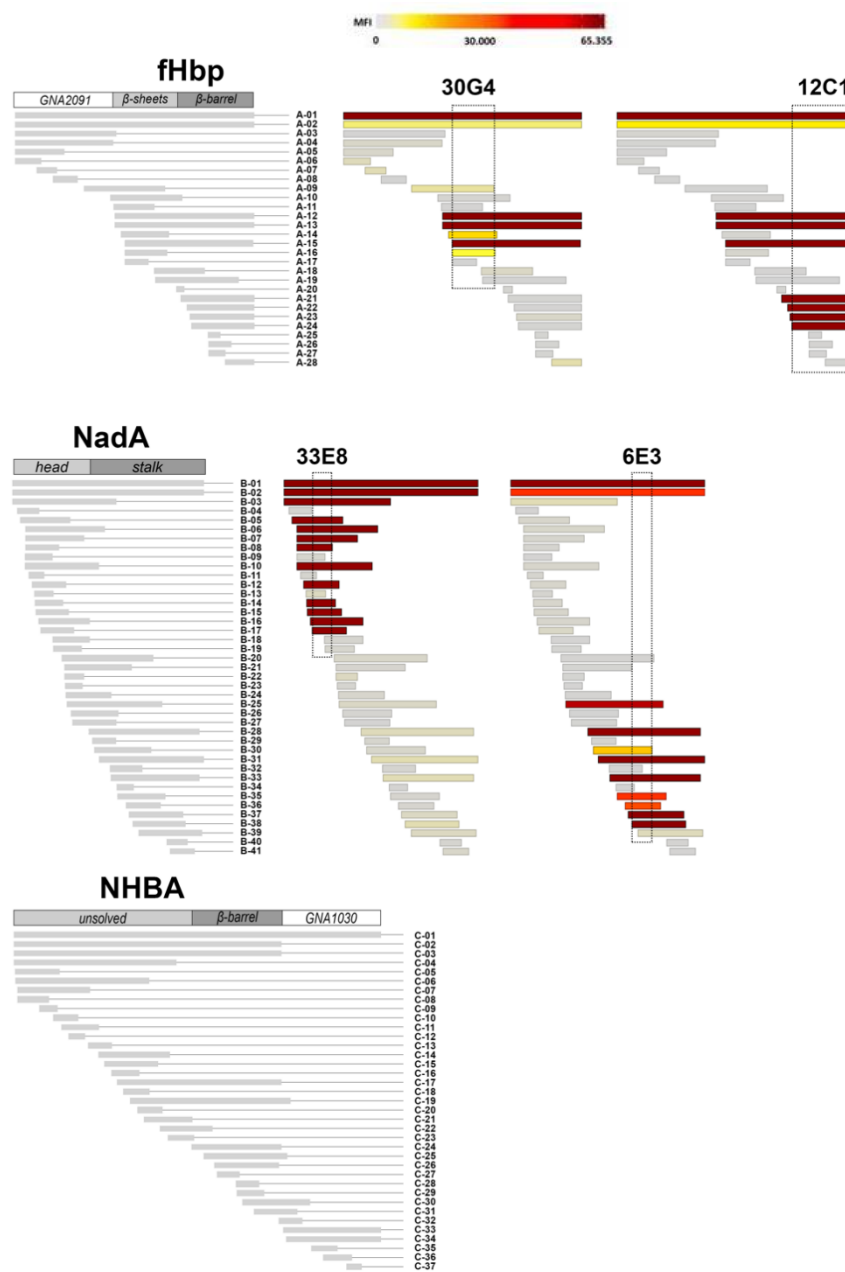


Immunological fingerprint of 4CMenB recombinant antigens via protein microarray reveals key immunosignatures correlating with bactericidal activity

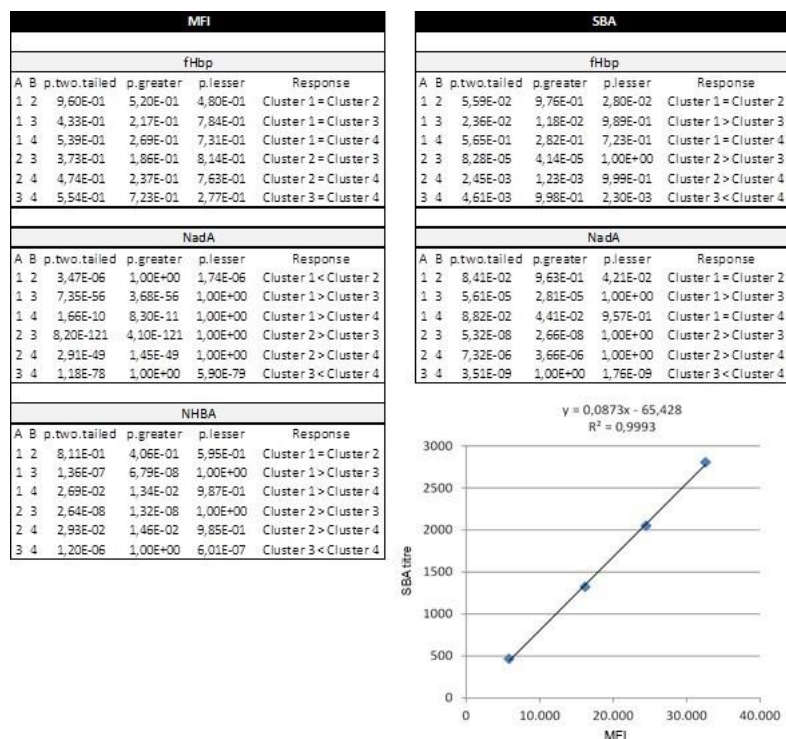
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Supplementary Information

Supplementary Figures



Supplementary Fig. 1. Left: schematic view of all spotted fragments in the array represented as bars, covering the whole sequence of the three antigens: GNA2091-fHbp, NadA and NHBA-GNA1030. Right: epitope mapping analysis of a panel of well-characterized monoclonal antibodies (mAbs). Colour scale reports MFI of every antigen fragment recognized by mAbs. Protein array results for 31E10 anti-NHBA and 9F11-anti NadA mAbs were previously published and reported in Domina *et al.* (1). Cariccio *et al.*(2) respectively.



Supplementary Fig. 2. Results of Wilcoxon rank-sum nonparametric test for estimating which clusters showed higher MFI/SBA distributions for the different antigens. Each cluster pair was tested (A vs B) and p-values lesser than 0.05 indicate if overall MFI or SBA distribution of cluster A is significantly greater or lesser than corresponding cluster B distribution. Bottom-right: linear correlation between overall mean clusters MFI on the x axis and mean clusters SBA values on the y axis. R^2 of 0.9993 indicates a very strong correlation.

Supplementary references

1. M. Domina *et al.*, Epitope Mapping of a Monoclonal Antibody Directed against Neisserial Heparin Binding Antigen Using Next Generation Sequencing of Antigen-Specific Libraries. *PLoS One* **11**, e0160702 (2016).
2. V. L. Cariccio *et al.*, Phage display revisited: Epitope mapping of a monoclonal antibody directed against Neisseria meningitidis adhesin A using the PROFILER technology. *MAbs* **8**, 741 (May-Jun, 2016).