**Supporting information**

**­­Immunogenicity of outer membrane proteins VirB9-1 and VirB9-2, a novel nanovaccine against *Anaplasma marginale***

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Groups**  | VirB9.1+Quil A | VirB9.1/SV-100 | VirB9.2+Quil A | VirB9.2/SV-100 | VirB9.1/9.2+Quil A | VirB9.1/9.2/SV-100 | SV-100 | Unimmunised |
| VirB9.1+Quil A |  | ns | \*\*\*\* | \*\*\*\* | ns | ns | \*\*\*\* | \*\*\*\* |
| VirB9.1/SV-100 | ns |  | \*\*\*\* | \*\*\*\* | ns | \* | \*\*\*\* | \*\*\*\* |
| VirB9.2+Quil A | \*\*\*\* | \*\*\*\* |  | ns | \*\*\*\* | \*\*\*\* | \* | \* |
| VirB9.2/SV-100 | \*\*\*\* | \*\*\*\* | ns |  | \*\*\*\* | \*\*\*\* | ns | ns |
| VirB9.1/9.2+Quil A | ns | ns | \*\*\*\* | \*\*\*\* |  | ns | \*\*\*\* | \*\*\*\* |
| VirB9.1/9.2/SV-100 | ns | \* | \*\*\*\* | \*\*\*\* | ns |  | \*\*\*\* | \*\*\*\* |
| SV-100 | \*\*\*\* | \*\*\*\* | \* | ns | \*\*\*\* | \*\*\*\* |  | ns |
| Unimmunised | \*\*\*\* | \*\*\*\* | \* | ns | \*\*\*\* | \*\*\*\* | ns |  |

 **S1 Table.** Statistical analysis of ELISPOT results

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Groups**  | VirB9.1+Quil A | VirB9.1/SV-100 | VirB9.2+Quil A | VirB9.2/SV-100 | VirB9.1/9.2+Quil A | VirB9.1/9.2/SV-100 | SV-100 | Unimmunised |
| VirB9.1+Quil A |  | ns | \*\*\*\* | \*\*\*\* | \*\*\*\* | \*\*\*\* | ns | ns |
| VirB9.1/SV-100 | ns |  | \*\*\*\* | \*\*\*\* | \*\*\*\* | \*\*\*\* | ns | ns |
| VirB9.2+Quil A | \*\*\*\* | \*\*\*\* |  | ns | ns | ns | \*\*\*\* | \*\*\*\* |
| VirB9.2/SV-100 | \*\*\*\* | \*\*\*\* | ns |  | ns | ns | \*\*\*\* | \*\*\*\* |
| VirB9.1/9.2+Quil A | \*\*\*\* | \*\*\*\* | ns | ns |  | ns | \*\*\*\* | \*\*\*\* |
| VirB9.1/9.2/SV-100 | \*\*\*\* | \*\*\*\* | ns | ns | ns |  | \*\*\*\* | \*\*\*\* |
| SV-100 | ns | ns | \*\*\*\* | \*\*\*\* | \*\*\*\* | \*\*\*\* |  | ns |
| Unimmunised | ns | ns | \*\*\*\* | \*\*\*\* | \*\*\*\* | \*\*\*\* | ns |  |

1. VirB9-1-specific ELISPOT assay results: \*, p < 0.05; \*\*\*\*, p < 0.0001; ns = not significant.
2. VirB9-2-specific ELISPOT assay results: \*\*\*\*, p < 0.0001; ns = not significant.