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| --- | --- | --- |
| **Table S7.** Sequence of reactive peptides identified by infected-rabbit sera |  |  |
| Sequences of reactive peptides based on Fig.2A (subspecies *pallidum*) |
| **Peptide or peptide range** | **Experimentally determined Epitope-containing sequence** | **Location per AlphaFold** | **B-cell epitope predicted by** |
| IEDB | BCpreds | BepiPred2.0 |
| C1-C3 | GVLTPQVSGTAQLQWGIAFQKNPRTGPGKHTHGFRTTNSL | Scaffold (C1) and ExL1 (C2-3) | X | X | X |
| C6 | THTRRGEARSGVWAQLQLKD | Scaffold | X | X | X |
| C13-C14 | KPFVTRAYSEKDTRYAPGFSGSGAKLGYQA | ExL3 | X | X |  |
| C18 | GAWDSTDTTHSKYGFGADAT | ExL4 | X | X | X |
| C20 | LSYGVDRQRLLTLELAGNAT | Scaffold | X |  |  |
| C25-C29 | EPGAGFRFSFALDAGNQHQSNAHAQTQERAILKAREVFRRVEGKLVQNLPNIMMPPGITE | Scaffold (C25) and ExL6 (C26-C29) | X | X | X |
| C39 | LRMQWKWLSSGIYFATAGTN | Scaffold |  | None |  |
| C43 | LKLETKSGDPYTHLLTGLNA | Scaffold | X | X | X |
| N–C46-47 | TYIRYRNNGGYELNGAVPPGTINMPILGKA | ExL8 | X |  |  |
| C50-C51 | HAWLAPHTSVLGTTNRFNIINAAGNLLNER | ExL9 | X | X | X |
| C53-C55 | ALQYQVGLTFSPFEKVELSAQWEQGVL**S/A**D**V/A**PYMGIAESIW (N) orQWEQGVLSDVPYMGIAESIW (Sea81-4/Bal3)\* | Scaffold (C53) and ExL10 (C54-C55) | X | X | X |
| Sequences of reactive peptides based on Fig.2B (subspecies *pertenue* and *endemicum*) |
| C1 | GVLTPQVSGTAQLQWGIAFQ | Scaffold  |  | None |  |
| C6 | THTRRGEARSGVWAQLQLKD | Scaffold |  | X | X |
| C13-C14 | KPFVTRAYSEKDTRYAPGFSGSGAKLGYQA  | ExL3 | X | X | X |
| C18 | GAWDSTDTTHSKYGFGADAT | ExL4 | X | X |  |
| C20 | LSYGVDRQRLLTLELAGNAT | Scaffold | X |  |  |
| S – C22 | LEQHYRKGTEDSTNENKTAL | ExL5 | X | X |  |
| C25 | EPGAGFRFSFALDAGNQHQS | Scaffold |  | X |  |
| C33 | SAIQTVLAAGALAALVSQLV | ExL6 | X |  |  |
| C36 | FRSSDPRVVTAKLLAFLERA | ExL6 |  | None |  |
| C43 | LKLETKSGDPYTHLLTGLNA | Scaffold | X | X |  |
| S – C46 | TYVFYKNNGGYPLNGVVPSG | ExL8 | X | X | X |
| I – C46 | TYVFYKNNGGYELNGVVPPG | ExL8 | X | X | X |
| S – C47 | YPLNGVVPSGTINMPILGKA | ExL8 | X | X | X |
| I – C47 | YELNGVVPPGIINMPILGKA | ExL8 | X | X | X |
| C51 | LGTTNRFNIINAAGNLLNER | ExL9 | X | X | X |
| C53 | ALQYQVGLTFSPFEKVELSA | Scaffold |  | None |  |
| S – C54 | SPFEKVELSAQWEQGVLSDV | ExL10 | X | X | X |
| I – C55 | QWEQGVLSDVPYMGIAESIW | ExL10 | X | X | X |
| Sequences of reactive peptides based on Fig.2C  |
| D34-D36 | HLNGKGLEINMRLIEQQKNPDARMRTALFISWLQFTYTKT | ExL6  | X | X | X |
| I – C39 | LRMQWKWLSSGIYFATAGTN | Scaffold |  | None |  |
| C43 | LKLETKSGDPYTHLLTGLNA | Scaffold | X | X | X |
| D46-D47 | TYIFYINNGGAQYKGSNSDGVINTPILSKA | ExL8 | X | X | X |
| D49 | WCSYRIPLGSHAWLAPHTSV | Scaffold |  | None |  |
| D51 | LWATNRFNHNQSGDALLREH | ExL9 | X | X | X |

Lightly shaded peptides are in the NH2-terminal portion of the protein.

\*S and V in the Sea 81-4/Bal3 strain, A and A in Nichols