**Supplementary table 2 – Top Proteins with highest seropositivity (>38%) in the cohort**

|  |  |  |  |
| --- | --- | --- | --- |
| **Known targets of protective antibodies in humans or animal models** | | **No evidence as targets of protective antibodies** | |
| *Characterized in high-resolution in this study* | *Previously*  *well-characterized* | *Characterized in high-resolution in this study* | *Previously*  *well-characterized* |
| PHISTc(PF3D7\_0801000) 1  MSP102  Rh2a 3,4  Rh2b 3,4  EMP3 5  RON26  DBLMSP7 | Ag332 8–10  LSA311  STARP12  GLURP13–15  MSP416,17  MSP218–20  EBA175 21,22  KAHRP23  MSP124  PF11-125  RIFIN 26,27  STEVOR 28  PfEMP129,30 | SURFINs  REX1  SBP1  TREP  PF3D7\_0424700(FIKK Ser/Thr Kinase)  PF3D7\_0511500 (RNA pseudouridylate synthase)  PTP3  RON4  LISP2  PTP4  CRMP4  PF3D7\_0628100  PF3D7\_1023100(putative dyenin heavy chain)  PF3D7\_0907200(putative HECT domain-containing protein 1)  PFIT\_1002300  PFIT\_0522600  CRA(EXP1) | FIRA 31  MESA 32,33  LSA1 (Protective T cell responses - 34) |

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