

Table S4. AMA1 overlapping peptides.

#	Sequence	Pool	#	Sequence	Pool
A1	QNYWEHPYQNSDVYRPINEH	3D71	A45	DNDDEGNKKIIPRIFISDD	CP 3
A2	SDVYRPINEHREHPKEYEYP	3D71	A46	IAPRIFISDDKDSLKCPCDP	CP 3
A3	REHPKEYEYPLHQEHTYQQE	CP 1	A47	KDSLKCPCDPEMVSQSTCRF	CP 3
A4	LHQEHTYQQEDSGEDENTLQ	CP 1	A48	EMVSQSTCRFFVCKCVERRA	CP 3
A5	DSGEDENTLQHAYPIDHEGA	CP 1	A49	FVCKCVERRAEVTSNNEVVV	CP 3
A6	HAYPIDHEGAEPAPQEQLNF	CP 1	A50	EVTSNNEVVVKEEYKDEYAD	CP 3
A7	EPAPQEQLNFSSIEIVERSN	CP 1	A51	KEEYKDEYADIPEHKPTYDK	CP 3
A8	SSIEIVERSNYMGNPWTEYM	CP 1	A52	IPEHKPTYDKMKGGPGGG	3D73
A9	YMGNPWTEYMAKYDIEEVHG	CP 1	A53	QNYWEHPYQKSDVYHPINEH	FVO1
A10	AKYDIEEVHGSIRVDLGED	CP 1	A54	SDVYHPINEHREHPKEYEYP	FVO1
A11	SGIRVDLGEDAEVAGTQYRL	CP 1	A68	FLTPVATGNQDLKDGGFAPF	FVO1
A12	AEVAGTQYRLPSGKCPVFGK	CP 2	A69	DLKDGGFAPPTNPLISPMT	FVO1
A13	PSGKCPVFGKGIIIENSKTT	CP 2	A70	PTNPLISPMTLNGMRDFYKN	FVO1
A14	GIIIENSKTTFLTPVATGNQ	CP 2	A71	LNGMRDFYKNNEYVKNLDEL	FVO1
A15	FLTPVATGNQYLKDGGFAPF	3D71	A72	NEYVKNLDELTLCSRHAGNM	FVO1
A16	YLKDGGFAPFTEPLMSPMT	3D71	A73	TLCSRHAGNMNPDNDKNSNY	FVO1
A17	PTEPLMSPMTLDEMRFYKD	3D71	A74	NPDNDKNSNYKYPVYDYND	FVO2
A18	LDEMRFYKDNKYVKNLDEL	3D71	A75	KYPVYDYNDKKCHILYIAA	FVO2
A19	NKYVKNLDELTLCSRHAGNM	3D71	A77	QENNGPRYCNKDQSKRNSMF	FVO2
A20	TLCSRHAGNMIPDNDKNSNY	3D71	A78	KDQSKRNSMFCFRPAKDKLF	FVO2
A21	IPDNDKNSNYKYPVYDDKD	3D72	A79	CFRPAKDKLFENLVYLSKNV	FVO2
A22	KYPVYDDKDKKCHILYIAA	3D72	A80	ENLVYLSKNVVDNWEEVCPR	FVO2
A23	KKCHILYIAAQENNGPRYCN	CP 2	A81	VDNWEEVCPRKNLENKFL	FVO2
A24	QENNGPRYCNKDESKRNSMF	3D72	A82	KNLENKFLWVDGNCEDIP	FVO2
A25	KDESKRNSMFCFRPAKDISF	3D72	A83	WVDGNCEDIPHVNEFSANDL	FVO3
A26	CFRPAKDISFQNLVYLSKNV	3D72	A84	HVNEFSANDLFECNKLVEFEL	FVO3
A27	QNLVYLSKNVVDNWWEKVCPR	3D72	A90	FKADRYKSHGKGYNWGNYNR	FVO3
A28	VDNWWEKVCPRKNLQNAKFL	3D72	A91	KGYNWGNYNRETQKCEIFNV	FVO3
A29	KNLQNAKFLWVDGNCEDIP	3D72	A94	YIATTALSHPIEVEHNFPSCS	FVO3
A30	WVDGNCEDIPHVNEFPAIDL	3D73	A95	IEVEHNFPSCSLYKDEIKKEI	FVO3
A31	HVNEFPAIDLFECNKLVEFEL	3D73	A96	LYKDEIKKEIERESKRIKLN	FVO3
A32	FECNKLVEFELSASDQPKQYE	CP 2	A105	IPEHKPTYDNMKIIIASSAA	FVO3
A33	SASDQPKQYEQHLTDYEKIK	CP 2	A106	MKIIIASSAAVAVLATILMV	FVOT
A34	QHLTDYEKIKEGFKNKNREM	CP 2	A107	VAVLATILMVYLYKRKGNAE	FVOT
A35	EGFKNKNREMIKSAFLPTGA	CP 2	A108	YLYKRKGNAEKYDKMDQPQH	FVOT
A36	IKSAFLPTGAFKADRYKSHG	CP 2	A109	KYDKMDQPQHYGKSTSRNDE	FVOT
A37	FKADRYKSHGKGYNWGNYNR	3D73	A110	YGKSTSRNDEMMLDPEASFWG	FVOT
A38	KGYNWGNYNRTETQKCEIFNV	3D73	A111	MLDPEASFWGEEKRASHTTP	FVOT
A39	ETQKCEIFNVKPTCLINDKN	CP 3	A112	EKRASHTTPVLMKEPYY	FVOT
A40	KPTCLINDKNYIATTALSHP	CP 3	tPA1	MDAMKRGLCCVLLLC	tPA
A41	YIATTALSHPIEVENNFPCS	3D73	tPA2	RGLCCVLLLCGAVFV	tPA
A42	IEVENNFPCS LYKDEIMKEI	3D73	tPA3	VLLLCGAVFVSPSQE	tPA
A43	LYKDEIMKEIERESKRIKLN	3D73	tPA4	GAVFVSPSQEIHARF	tPA
A44	ERESKRIKLN DNDDEGNKKI	CP 3	tPA5	SPSQEIHARFR	tPA

20mer peptides overlapping by 10 amino acids (aa) were generated for the whole of the AMA1 vaccine insert present in the ChAd63 and MVA vaccines. Peptides were divided into pools containing up to 10 peptides and were divided up according to whether they were 3D7 strain specific (3 pools, $n = 24$), FVO specific (3 pools, $n = 24$), common peptides (CP; 3 pools, $n = 28$), FVO terminus peptides (FVOT; 1 pool, $n = 7$). A single pool of tPA peptides ($n = 5$) was used and these were 15mers overlapping by 10aa. Amino acids that were substituted to prevent potential N-linked glycosylation are indicated in bold.