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Supplementary Figure 1.

Antigen 1 [(+)-T-3D7-R033] [pQE30]

[HHHHHH]GSVTHESYQELVKKLEALEDAVLTGYSLFQKEKMLNEEIITTKGASAQSGASAQSGASAQSGASAQSGASAQSGTSGPSGPGSGTSPSSRSNTLPRSNTSSGASAPADASELKDGA
NTQVVAKPADA VSTQSAKNPPGATVPSGTASTKGAIRSPGAANPSDDSSGT[PGRPAAKL].

Antigen 2 [(-)-T-R033-Wellcome] [pQE30]

[HHHHHHGSAC]ELKDGANTQVVAKPADA VSTQSAKNPPGATVPSGTASTKGAIRSPGAANPSDDSSGTNEGTS GTAVTTSTPGSKGSVASGGSGGSVASGGSVASGGSVASGGSGNSRRT
NPSDNSS.

Antigen 3 [(+)-T-3D7-R033-Wellcome] [pQE30]

[HHHHHH]GSVTHESYQELVKKLEALEDAVLTGYSLFQKEKMLNEEIITTKGASAQSGASAQSGASAQSGASAQSGASAQSGTSGPSGPGSGTSPSSRSNTLPRSNTSSGASAPADASELKDGA
NTQVVAKPADA VSTQSAKNPPGATVPSGTASTKGAIRSPGAANPSDDSSGTNEGTS GTAVTTSTPGSKGSVASGGSGGSVASGGSVASGGSVASGGSGNSRRTNPSDNSSPG[STCSQA].

Antigen 4 [(-)-T-3D7-R033-Wellcome] [pET15b]

[HHHHHHSSQLVPRQS]HMSAQSGASAQSGASAQSGASAQSGASAQSGTSGPSGPGSGTSPSSRSNTLPRSNTSSGASPPADASELKDGANTQVVAKPADA VSTQSAKNPPGATVPSGTASTK
GAIRSPGAANPSDDSSGTNEGTS GTAVTTSTPGSKGSVASGGSGGSVASGGSVASGGSVASGGSGNSRRTNPSDNSS.

Antigen 5 [(-)-T-K1SR-R033-Wellcome] [pET15b]

[HHHHHHSSQLVPRQS]HMSAQSGASAQSGASAQSGTSAQSGTSGTSAQSGTSGTSGTSGASAQSGTSGPSGPGSGTSGPSGPGSGTSGPSGPGSGTSGPSGPGSGTSPSSRSNTLPRSNTSSGASPPADASELKDGAN
TQVVAKPADA VSTQSAKNPPGATVPSGTASTKGAIRSPGAANPSDDSSGTNEGTS GTAVTTSTPGSKGSVASGGSGGSVASGGSVASGGSVASGGSGNSRRTNPSDNSS.

Antigen 6 [(+)-T-K1SR-R033-Wellcome] [pET15b]

[HHHHHHSSQLVPRQS]HMSVTHESYQELVKKLEALEDAVLTGYSLFQKEKMLNEEIITTKGASAQSGASAQSGASAQSGTSAQSGTSGTSAQSGTSGTSGTSGASAQSGTSGPSGPGSGTSGTSGPSGPGSGT
GPSGTSGPSGPGSGTSPSSRSNTLPRSNTSSGASPPADASELKDGANTQVVAKPADA VSTQSAKNPPGATVPSGTASTKGAIRSPGAANPSDDSSGTNEGTS GTAVTTSTPGSKGSVASGGSGGSVASGGSVASGGSVASGGSGNSRRTNPSDNSS.

Supplementary Figure 1. Amino acid sequences showing the final candidate immunogen (Antigen 6) with the five comparative reagents (antigens 1-5). Green shading highlights the K1 amino acid sequence (antigens 1, 3 & 4: 3D7; antigens 5 & 6 K1SR). The T1 (conserved) and T2 (semi-conserved) T cell epitopes are underlined. Red and blue shading highlight R033 and Wellcome block 2 sequences respectively. Restriction sites within the hybrid coding sequences are shown in bold (BamHI = GS; SacI = EL; KpnI = GT; SmaI = PG and NdeI = HM). Vector specific sequences are shown within parentheses [].