

Additional File 4: Global group M Env coverage analysis. Potential HIV isolate coverage provided by mono-valent (panels A, B and C), di-valent (panels D, E and F) and multi-valent (panels G, H and I) formulations of the four natural sequence based products is shown. Theoretical coverage (90% in the examples shown here) is again dependent upon the number of epitopes generated but there is a much greater epitope requirement than for Gag. For example if a 1-Hit model is considered, then the tetra-valent product would reach 90% coverage by generating 7 epitopes per subject on average (panel G, orange diamonds). If a 3-Hit model is considered the mono-valent subtype products face an intractable problem with extreme epitope requirements for 90% global coverage (panel C). Even the multi-valent products have stringent epitope requirements (17-20) for reaching 90% coverage (panel I).

