**Supplementary Figure 1. Immunoblottings assays using A4 and A8 phages-immunized mice sera.** Western-blotting experiments were performed using the recombinant protein (10 µg) which was submitted to a SDS-12% PAGE and blotted onto a nitrocellulose membrane (0.2 μm pore size, Sigma, St. Louis, USA). A low range protein ladder (InvitrogenTM, Life Technologies, USA) was used (A). Membranes were incubated with A4 and A8 phages-immunized mice sera pools (B and C, respectively|), or with a naive mice sera pool (D). Immunoblottings were derived from three independent experiments, and one representative preparation is shown.



**Supplementary Figure 2. Evaluation of A4 and A8 mimotopes in the dihydroorotate dehydrogenase amino acid sequence.** The alignment of the conformational structure of the dihydroorotate dehydrogenase protein (PDB: 4WZH\_A) aiming to identify the A4 and A8 peptide sequences was performed, and it is possible to identify the cluster region of these molecules (A, marked in pink), besides the other epitopes present in the protein sequence (B, marked in gray). The immunogenicity scale of each epitope according to prediction using the Epitopia server is also shown (C).

