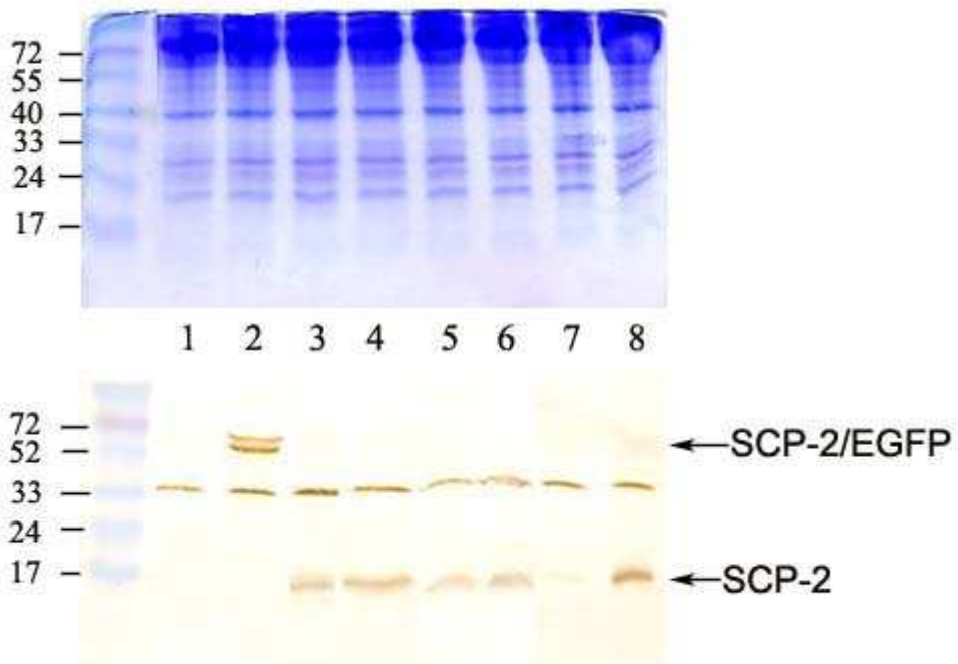


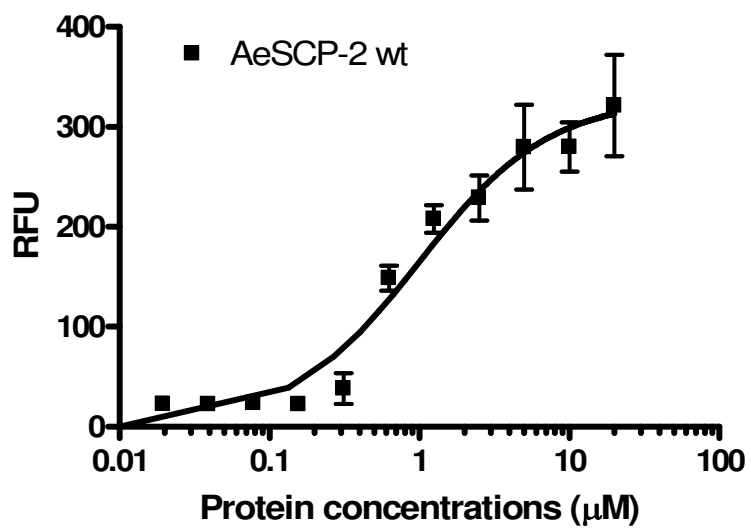
Supplementary Figure 1. Western blotting analysis of over-expression of AeSCP-2s in *Aedes aegypti* Aag-2 cells. The cells were transfected with each over-expression vector. Protein samples (20ug/lane) were analyzed on 15% SDS-PAGE gel. Upper Panel: Protein gel stained with Coomassie blue. Lower Panel: 1:2000 dilution of the anti-AeSCP-2 primary antibodies (8) and 1:2000 dilution of goat anti-rabbit secondary antibody conjugated to horseradish peroxidase. Lane 1: empty vector; Lane 2: AeSCP-2/EGFP fusion protein; Lane 3: F105A; Lane 4: M90L; Lane 5: W44E; Lane 6: F32A; Lane 7: Y30A; Lane 8: AeSCP-2.

Supplementary Figure 2. Effects of potential specific ligands on binding of NBD-cholesterol in recombinant wild type AeSCP-2. The binding assays were performed with 0.1 μ M NBD-cholesterol with increasing concentrations of purified wild type recombinant AeSCP-2. Data represent mean of three replicates and the standard deviation for each data point were shown.

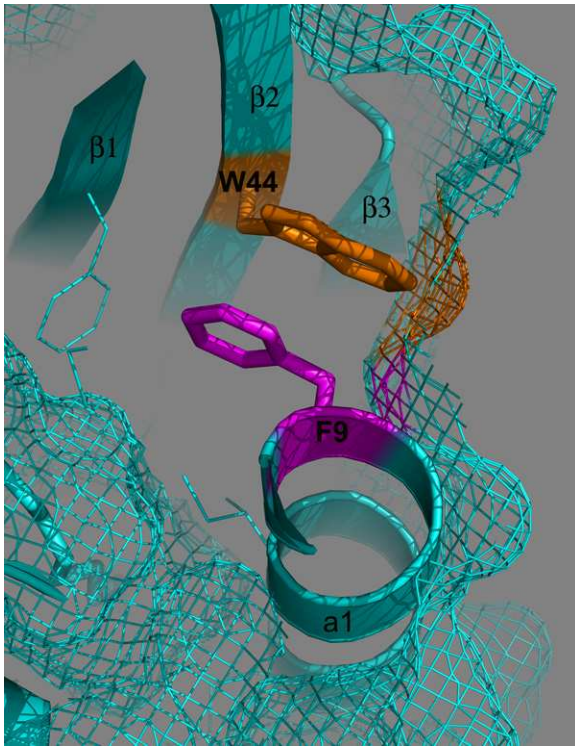
Supplementary Figure 3. Partial surface diagrams (Pymol) of the AeSCP-2 (pdb entry 1PZ4) at 1.35 Å resolution and showing π - π stacking of F9 and W44. A residue that directly interacts with bound ligand is in purple colored sticks (F9) and that is not in direct contact with the ligand in orange colored sticks (W44).



Supplementary Figure 1



Supplementary Figure 2



Supplementary Figure 3