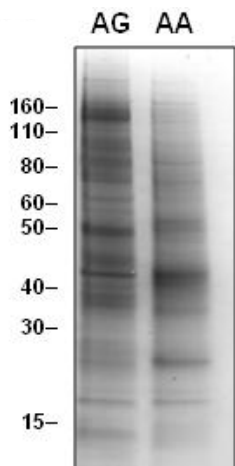
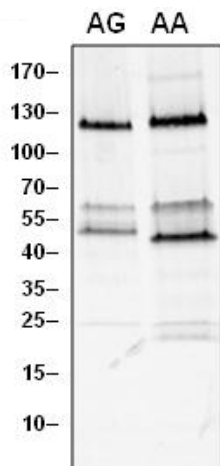
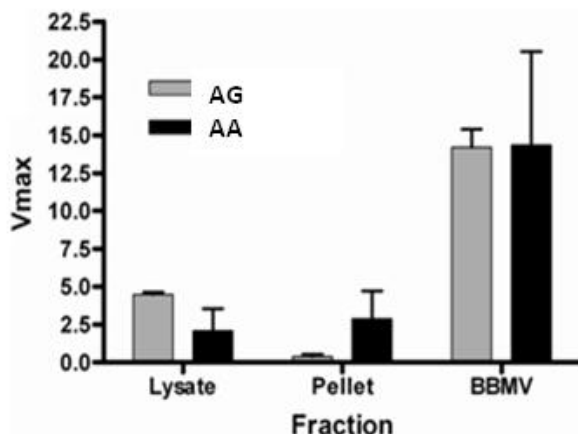
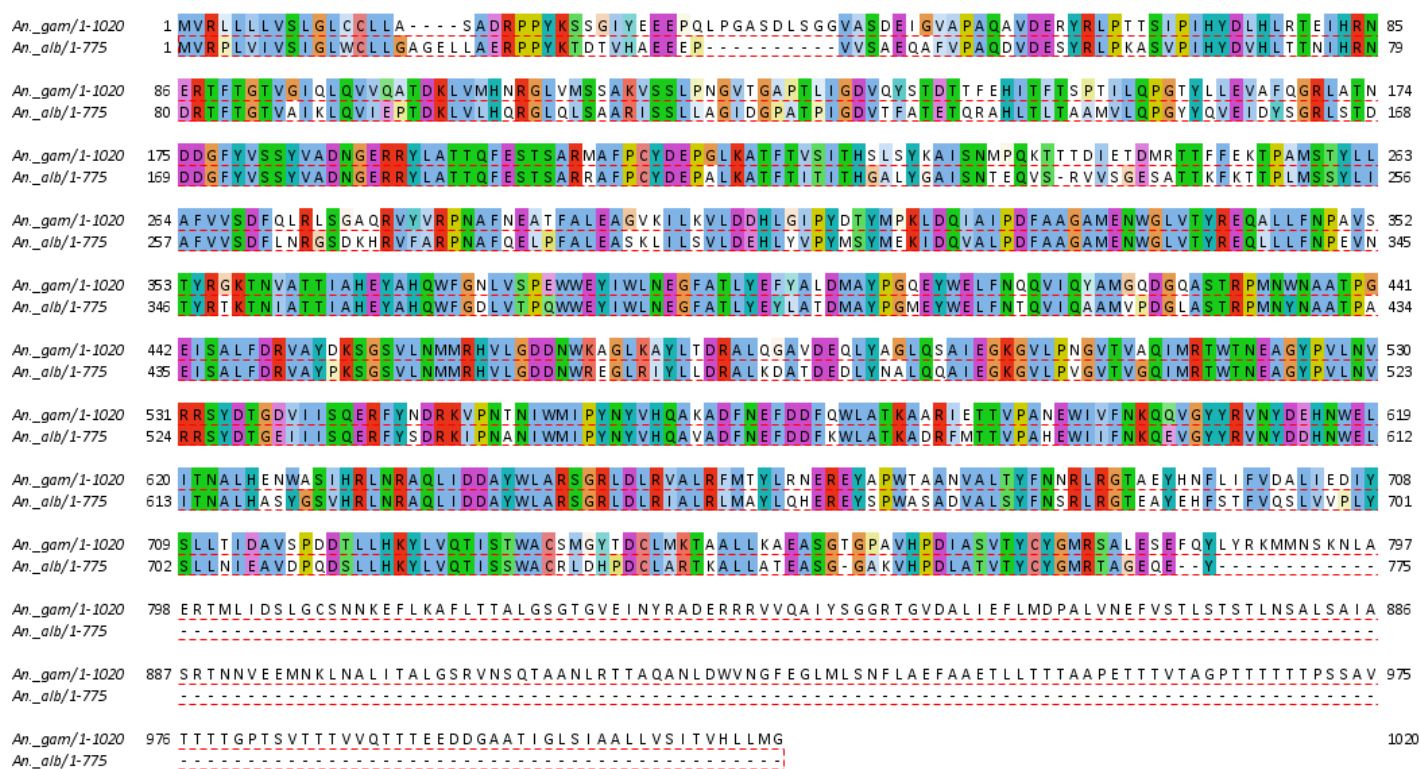


a**b****c****d**

Supplemental Figure S2. Analysis of the Brush Border Microvilli (BBMV) Vesicle Preparations. **(a)** SDS-PAGE analysis of Brush Border Microvilli Vesicles (BBMV) revealed similarities in banding patterns between *An. gambiae* (AG) and *An. albimanus* (AA). **(b)** Immunoblot of *An. gambiae* (AG) and *An. albimanus* (AA) BBMV lysates. The upper arrowhead indicates the expected size (kDa) of the predicted full-length AnAPN1 product while the lower arrowhead indicates smaller isoforms. **(c)** BBMV enzymatic activity was assessed as a quality control check for microvillar aminopeptidase enrichment. The midgut microvilli surface antigen, AnAPN1 was detected in both species and aminopeptidase activity was observed to be enriched in the BBMVs as compared to the original lysates and non-BBMV fractions. Representative data are shown. Only samples meeting these quality control assessments were analyzed by LC-MS/MS. **(d)** Pairwise amino acid alignment of full-length *An. gambiae* APN1 and its putative ortholog in *An. albimanus*. Residues are color coded according to the “Clustalx” option in Jalview (<http://www.jalview.org/help/html/colourSchemes/clustal.html>). Briefly, identical amino acids are colored by biochemical property as follows: green = polar (NTSQ), cyan = large aromatic polar (HY), blue = hydrophobic (LVIMFWA), red = basic (KR), magenta = acidic (DE), pink = C, orange = G, yellow = P. Non-identical but similar amino acids follow the same color scheme but in a different shade. The signal peptide is underlined in orange, the 135-residue recombinant transmission-blocking vaccine antigen is underlined in red, the M1 peptidase domain is underlined in blue (overlap between antigen and peptidase domain double underlined in red/blue), the threonine-rich mucin domain is underlined in light blue, and the GPI anchor is underlined in black. The alignment was generated using the T-coffee web-based server (<http://tcoffee.crg.cat/>) and edited with Jalview 2.7 and Adobe Illustrator 14.0.