

Figure S1. Sequence alignments of SNX1 and SNX2 N-termini across representative species. SNX1 and SNX2 are thought to have arisen from a gene duplication event. The N-terminal regions of SNX1 and SNX2 from representative metazoans (humans, mice, worms, flies, and zebrafish) were aligned in MultiAlign. All species contain a conserved DxF motif in both proteins (highlighted in red); humans, mice, and zebrafish contain a second acidic motif.



Figure S2. The SNX2 flexible N-terminus also binds SNX27. (A) Domain schematic of SNX2 with flexible N-terminal region (green); PX domain (grey); and C-terminal BAR domain (yellow). (B) SDS-PAGE (left) and Western blot (right; probed with anti-His) showing pulldown experiments with purified proteins. GST-tagged SNX2 N-terminus (residues 1-139) was used as bait and full-length H6-tagged SNX27 as prey. As with SNX1 (Figure 1), the SNX2 N-terminus can pull down SNX27 *in vitro*.