

## Supplementary Table II

	BAR domain	Condition		N	mean	s.d.	Pairwise comparison against			
							WT1	WT2	WT3	WT4
Set 1	Wild-type 1	7 $\mu$ M	10 min	981	14.1	2.8				
	A66W	1.4 $\mu$ M	10 sec	310	11.7	2.5	**	**	**	N.S.
	A66W-DPH	3.5 $\mu$ M	10 sec	212	14.6	2.3	N.S.	**	**	**
Set 2	Wild-type 2	7 $\mu$ M	10 min	285	15.7	2.3				
	SSQ	28 $\mu$ M	10 min	248	44.1	6.4	**	**	**	**
	SS	28 $\mu$ M	10 min	33	43.0	5.4	**	**	**	**
Set 3	Wild-type 3	7 $\mu$ M	10 min	612	15.6	2.6				
Set 4	Wild-type 4	7 $\mu$ M	10 min	214	12.7	2.5				
	$\Delta$ App	7 $\mu$ M	10 min	94	20.9	3.6	**	**	**	**
	Amphiphysin	7 $\mu$ M	10 min	143	19.1	2.9	**	**	**	**
Total				3132	17.5	9.1				

**Supplementary Table I.** Statistical analyses of liposome tube diameters. Four sets of measurements were made using three different preparations of the wild-type BAR domains (The sets 2 and 3 used the same preparation). One preparation of brain liposomes was used for each set. Multiple comparison (one-way ANOVA and Kruskal and Wallis test) in each set was extremely significant ( $P \ll 0.001$ ). However, considerable differences were observed among the wild-type data. To examine whether these difference were within the deviation of the wild-type data, whole data were pooled, analyzed by ANOVA and then pairwise comparisons against each wild-type data were performed using Scheffe' s test (N.T.,  $P > 0.05$ ; \*\*,  $P < 0.01$ ). At present, we conclude that the tubule diameters induced by the SSQ, SS,  $\Delta$ App, and amphiphysin BAR domains differ significantly from that of the wild-type endophilin A1 BAR, but the narrower tubule diameter of the A66W mutant may rather reflects the transient nature of the tubulation.