

Figure 6. Model of Endocytosis Checkpoint That Controls Clathrin-Coated Pit Maturation

CCVs are formed from productive CCPs, which have undergone a maturation process. An endocytosis checkpoint gates the maturation process, and CCPs that do not progress beyond this restriction point abort by sequential disassembly of AP2 and clathrin. Progression through the restriction point is dependent on the concentration of cargo receptors, AP2 adaptors, and probably other factors. The GTP binding and hydrolysis activities of unassembled dynamin, as revealed by analysis of dynamin GTPase mutants, control the rate and extent of progression through this checkpoint. Dynamin assembly and assembly-stimulated GTPase activities required at late stages of CCV formation are not rate-limiting. See text for details. doi:10.1371/journal.pbio.1000057.g006