

Table S2.

GFP-tagged Constructs	Particle Size	Velocity (nm/sec)	SE
Cos2	Small	61.7	6.8
	Medium	37.4	13.6
	Large	20.7	9.1
Cos2- Δ Motor	Small	12.2**	6.6
	Medium	10.5	10.6
	Large	12.5	12.3
Cos2-S182N	Small	2.9**	1.4
	Medium	1.0**	0.7
	Large	ND	ND
ATP-depleted Cos2	Small	12.8**	6.1
	Medium	0**	0
	Large	ND	ND
ATP-depletion control	Small	73.6	23.5
	Medium	13.1	13.1
	Large	10.4	10.5
Cos2 colocalized with Fu-tail	Small	87.5	14.1
	Medium	35.7	34.0
	Large	6.3	6.3
Cos2 colocalized with Ci-CORD	Small	77.7	9.5
	Medium	71.9	16.9
	Large	3.0	2.5
Cos2 colocalized with Smo	Small	167.3**	33.8
	Medium	119.7	47.6
	Large	13.7	13.7
Klp10A	Small	253.5**	75.1
	Medium	204.3**	52.0
	Large	350.6	145.5