

**Table S3 Primary *Neurospora crassa* strains used in this study.**

Genotype	Source	Description
<i>mat a</i>	FGSC	WT strain (FGSC # 4200)
<i>mat A</i>	FGSC	WT strain (FGSC # 2489)
<i>mat a; kin-1</i>	FGSC	Nkin mutant strain (FGSC # 9939)
<i>mat a; ro-1::hygr</i>	This study	DHC $\Delta$ mutant strain
<i>mat a; ro-3::hygr</i>	FGSC	Dynactin p150 $\Delta$ mutant strain (FGSC # 14726)
<i>rid(RIP1) mat A his-3<sup>+</sup>::Pccg-1-Bml<sup>+</sup>-sgfp<sup>+</sup></i>	FGSC	Tubulin-GFP strain (FGSC # 9520)
<i>mat A his-3<sup>+</sup>::Pccg-1-hH1<sup>+</sup>-sgfp<sup>+</sup></i>	FGSC	Histone h1-GFP strain (FGSC # 9518)
<i>mat a ro-6<sup>7bp <math>\Delta</math> 1695</sup></i>	This study	DIC mutant strain
<i>mat A ro-6<sup>+</sup>::mCherry<sup>+</sup></i>	This study	WT DIC-mCherry strain
<i>mat A ro-6<sup>+</sup>::mCherry<sup>+</sup>; kin-1</i>	This study	Nkin mutant - DIC-mCherry strain
<i>mat A ro-6<sup>+</sup>::mCherry<sup>+</sup>; <math>\Delta</math> ro-3</i>	This study	Dynactin p150 $\Delta$ mutant - DIC-mCherry strain
<i>mat A; ro-3<sup>+</sup>::egfp<sup>+</sup></i>	This study	WT EGFP-Dynactin p150 strain
<i>mat A ro-6<sup>+</sup>::hs<sup>+</sup></i>	This study	WT DIC-6xHis-Strep-tag II strain