

**S1 Fig.** Immunofluorescence using; (a) only Alexa Fluor 488 secondary antibody on a population of *Paramecium* where majority of cells have fragmented parental macronucleus,(b, left panel) *C.elegans* embryo stained against 5- mCytosine as a negative control for immunofluorescence, (c, right panel) Human embryonic Kidney cells stained against 5-mCytosine (Abcam, ab73938) as a positive control for immunofluorescence, (d) immunofluorescence against 5-mCytosine (Diagenode, C15200081) during early and late stages of macronuclear development. Scale bar: 5μm for a, b and c, 7μm for d.