

## **Supplementary Fig. 1.**

## A: Negative control for pRPB1<sup>Ser2</sup> or pRPB1<sup>Ser5</sup> localization in mouse oocytes during meiosis.

During the immunofluorescence procedure, the rabbit antibody to pRPB1<sup>Ser2</sup> or pRPB1<sup>Ser5</sup> was omitted, and only the secondary antibody, Alexa 594-conjugated goat anti-rabbit IgG (1:500), was added. No immunofluorescence signal was observed at the GV and MI stages (b, e, h). DNA was visualized in blue. Scale bar =  $20 \mu m$ . **B: Negative control for pRPB1**<sup>Ser7</sup> **localization in mouse oocytes during meiosis.** Oocyte samples were not incubated with the rat antibody to pRPB1<sup>Ser7</sup> but were processed with only the secondary antibody, rhodamine-conjugated goat anti-rat IgG (1:500). No signal of pRPB1<sup>Ser7</sup> was detected in both GV and MI oocytes (b, e, h). DNA was visualized in blue. Scale bar =  $20 \mu m$ .