

**Supplementary information, Figure S6** Characterization of isolated mouse male germ cells.

Mouse spermatogenic cells were isolated through unit gravity sedimentation coupled with FACS sorting modified from methods described previously [1-3]. Enriched spermatocytes (SC, left top), round spermatids (RS, right top), elongating spermatids (ES, left bottom), and elongated spermatids (Ed, right bottom) were characterized by cell morphology (DAPI staining of nuclei). Scale bars are 20 µm.

## References

- 1. Bastos H, Lassalle B, Chicheportiche A *et al.* Flow cytometric characterization of viable meiotic and postmeiotic cells by Hoechst 33342 in mouse spermatogenesis. *Cytometry A* 2005; **65**:40-49.
- 2. Gerton GL, Millette CF. Stage-specific synthesis and fucosylation of plasma membrane proteins by mouse pachytene spermatocytes and round spermatids in culture. *Biol Reprod* 1986; **35**: 1025-1035.
- 3. Zhao S, Gou LT, Zhang M *et al.* piRNA-triggered MIWI ubiquitination and removal by APC/C in late spermatogenesis. *Dev Cell* 2013; **24**:13-25.