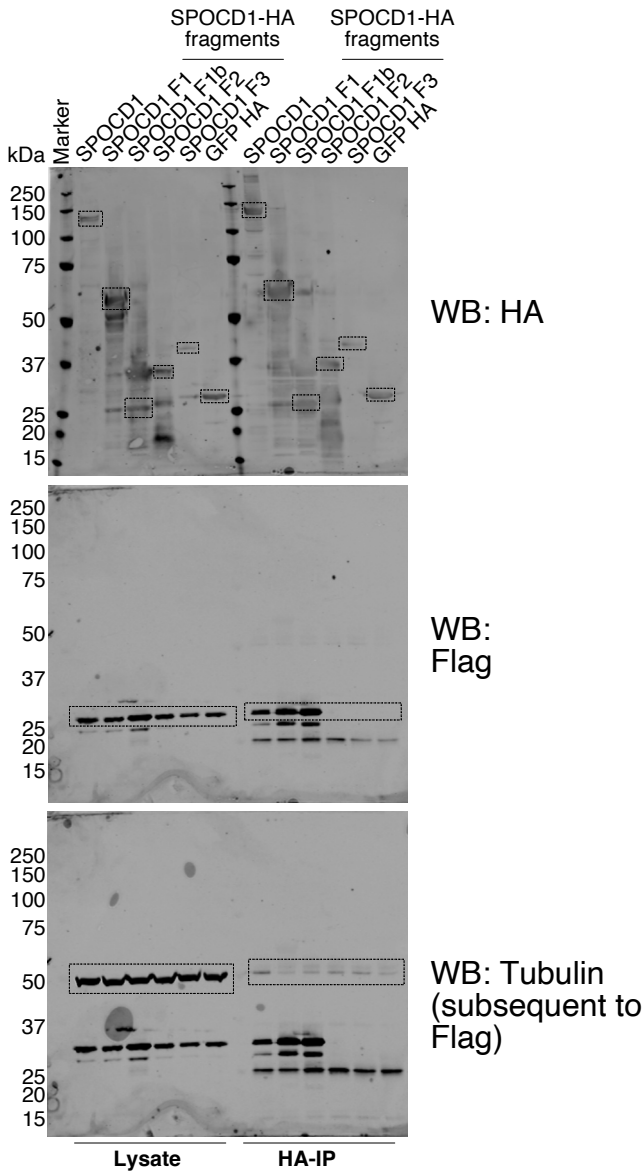


Supplementary information

Two-factor authentication underpins the precision of the piRNA pathway

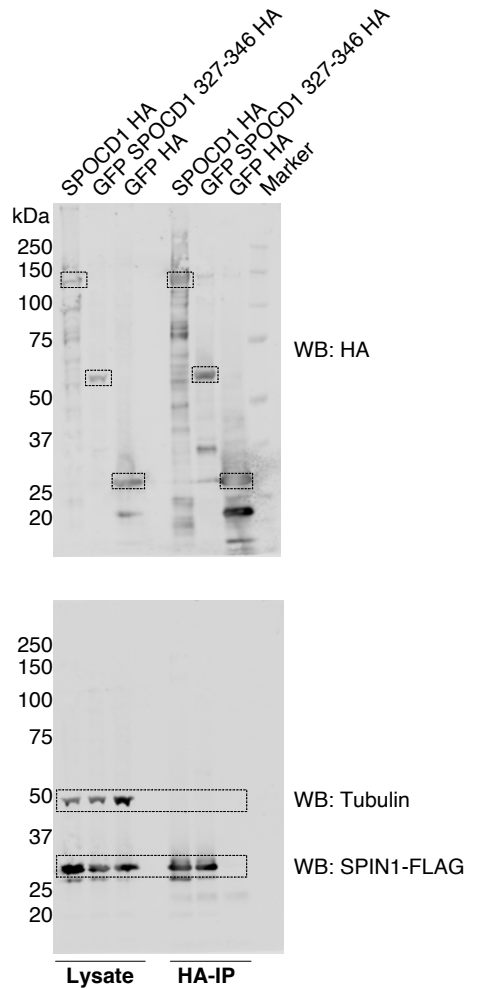
In the format provided by the authors and unedited

Whole blots used for Figure 1 d



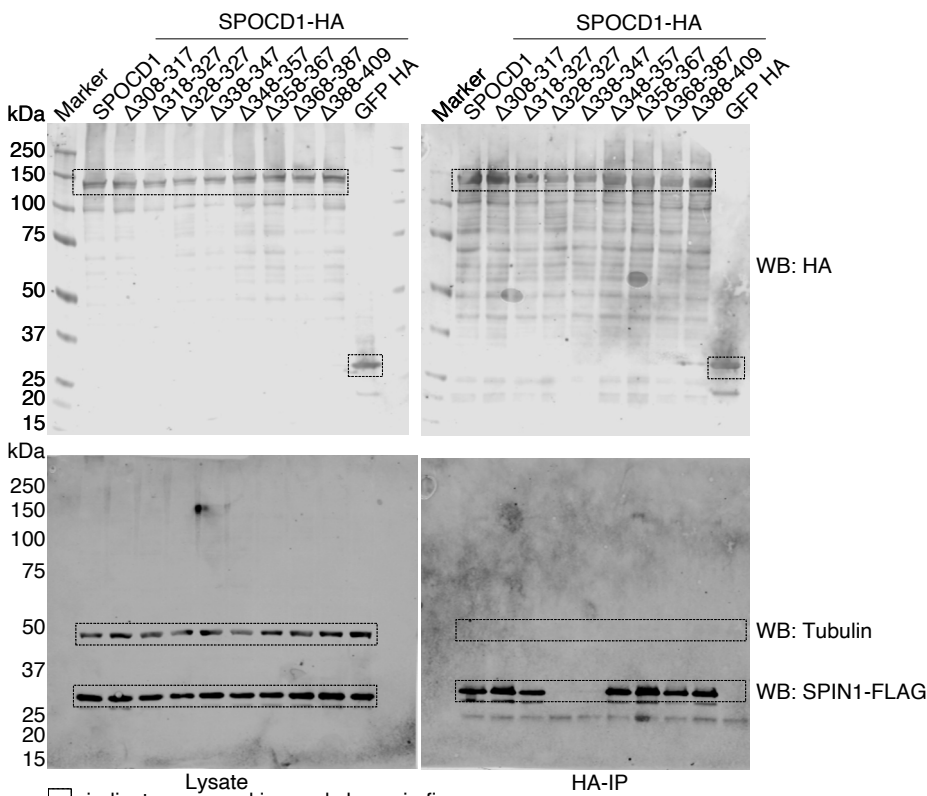
□ indicates cropped imaged shown in figure

Whole blots used for Figure 1 g



□ indicates cropped imaged shown in figure

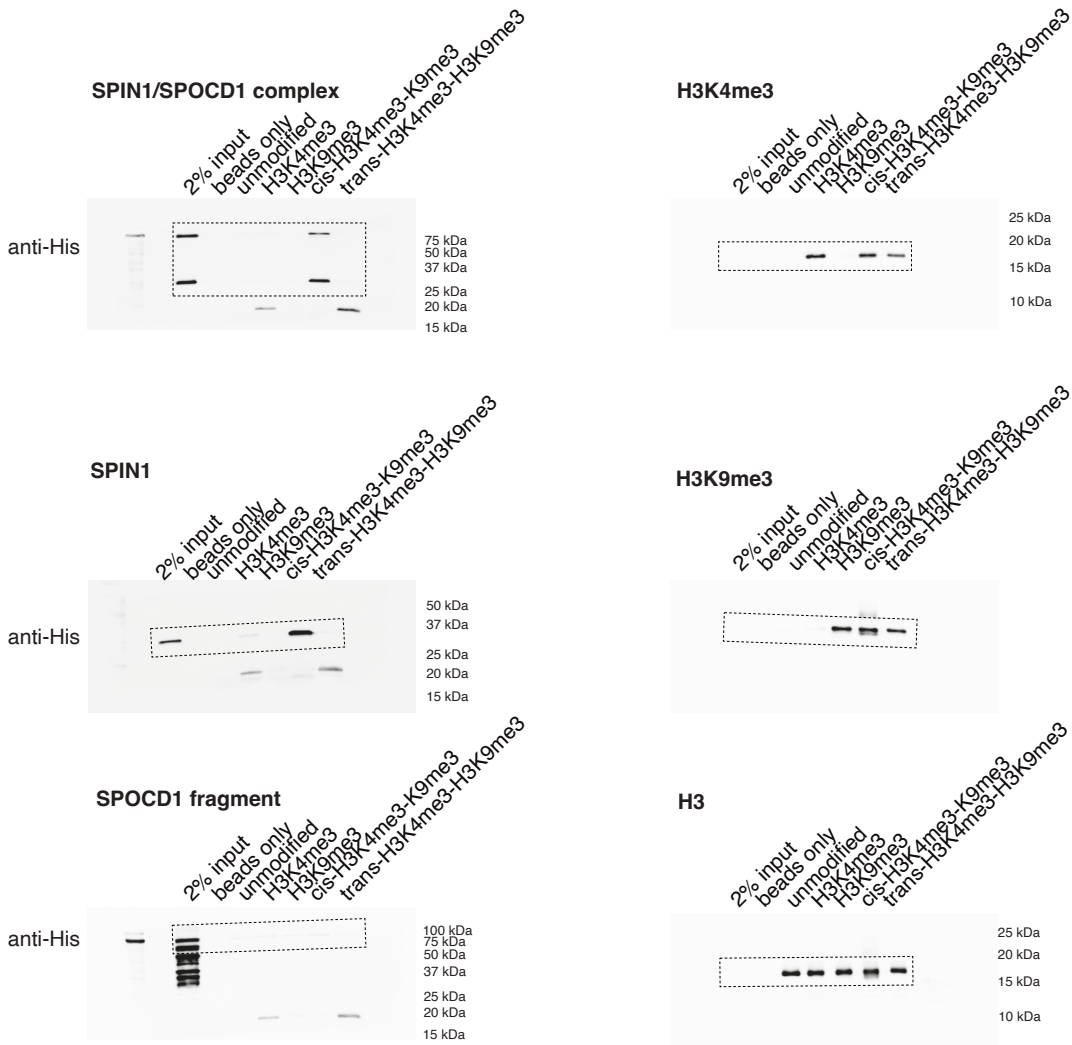
Whole blots used for Figure 1 e



□ indicates cropped imaged shown in figure

Supplemental Data Figure - Whole blot images of western blot figures

Whole blots and gels used for Figure 1 j

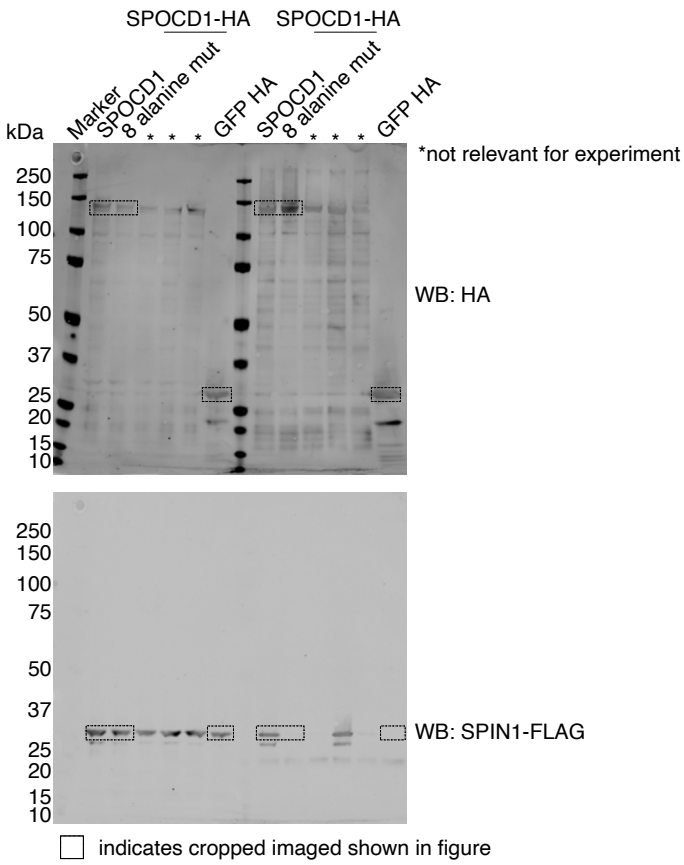


* 75 kDa marker band cross-reacts with anti-His antibody

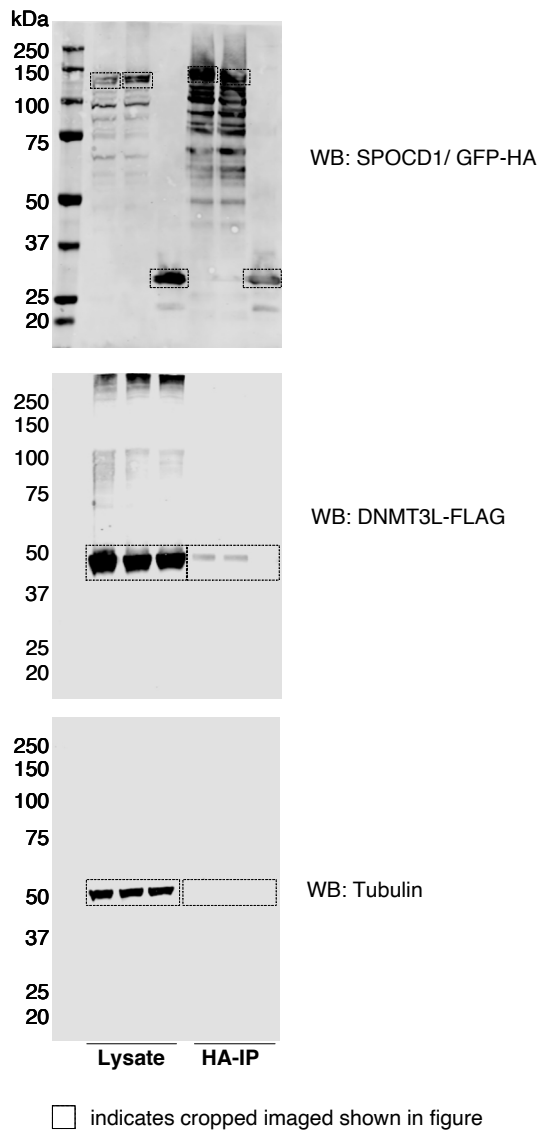
☐ indicates cropped image shown in figure

Supplemental Data Figure - Whole blot images of western blot figures

Whole blots used for Figure 4 a

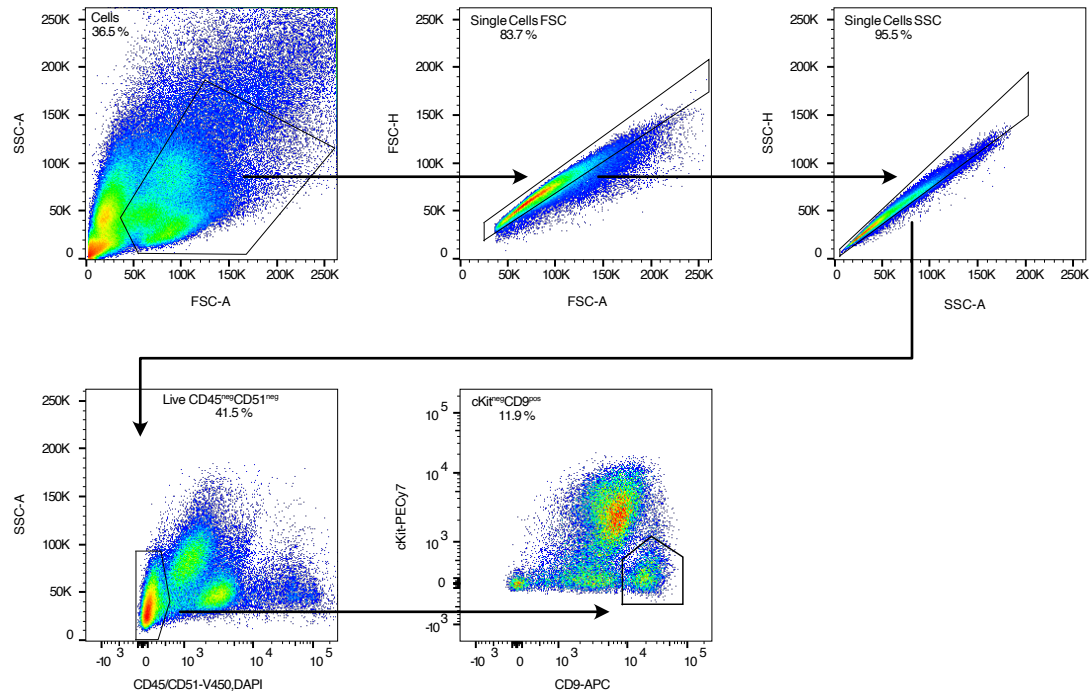


Whole blots used for Extended Data Figure 5 a

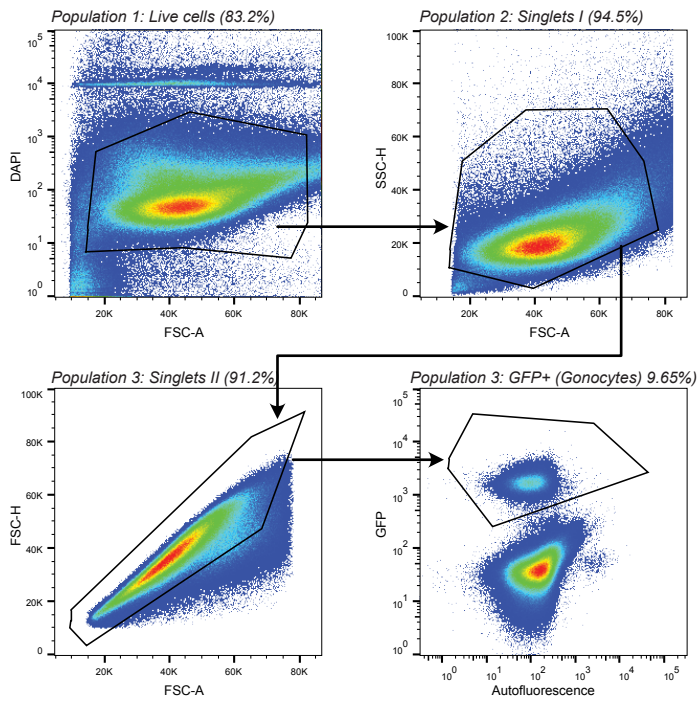


Supplementary Figure - FACS gating

a



b



Supplemental Figure – Gating strategy for sorting P14 spermatogonia and E14.5 gonocytes

a, Gating strategy to sort P14 CD9⁺ spermatogonia. **b**, Representative FACS gating strategy to isolate live gonocytes from single cell suspensions of embryonic testes using the Oct4-EGFP reporter (B6;129S4-Pou5f1^{tm2Jae/J}).