

Supplementary Note:

It has been reported that male, as well as female, germ cells produce SCP3 protein prior to the progression of female germ cells into meiotic prophase¹. Male germ cells subsequently down-regulate SCP3. The initial production of SCP3 protein by female and male germ cells is consistent with a model in which both female and male germ cells are competent to respond to a meiosis inducing substance, possibly retinoic acid^{2,3}. Female germ cells are then induced to enter meiosis and, in the absence of meiotic induction, male germ cells down-regulate SCP3.

1. Di Carlo, A.D., Travia, G. & De Felici, M. The meiotic specific synaptonemal complex protein SCP3 is expressed by female and male primordial germ cells of the mouse embryo. *Int J Dev Biol* **44**, 241-244 (2000).
2. Koubova, J. et al. Retinoic acid regulates sex-specific timing of meiotic initiation in mice. *Proc Natl Acad Sci U S A* **103**, 2474-2479 (2006).
3. Bowles, J. et al. Retinoid signaling determines germ cell fate in mice. *Science* **312**, 596-600 (2006).