

Additional file 9: Analysis of single copy genes and collapsed multicopy gene family of the sex chromosomes.

a. X-linked genes	Single copy genes	Multicopy gene family	% of expressed genes
<i>Expressed at some point during spermatogenesis</i>	1140	50	49,17
Expressed in spermatogonia B cells	806	32	70,42
Expressed in pachytene stage cells	726	35	63,95
Expressed in round spermatids cells	855	48	75,88
Enriched in RS	308	48	29,92
RS specific	176	21	16,55
p value of χ^2 test for X chromosome vs autosomes	3	6	
For spermatogonia B cells	3,83E-01	2,42E-01	
For pachytene stage cells	6,16E-04	2,28E-04	
For round spermatids cells	2,78E-01	6,44E-02	
For genes enriched in RS	7,11E-03	5,19E-02	
For RS specific genes	4,07E-03	8,40E-05	
b. Y-linked genes	Single copy genes	Multicopy gene family	% of expressed genes
<i>Expressed at some point during spermatogenesis</i>	12	4	94,12
Expressed in spermatogonia B cells	8	1	56,25
Expressed in pachytene stage cells	8	1	56,25
Expressed in round spermatids cells	10	4	87,50
Enriched in RS	3	3	37,50
RS specific	3	3	37,50
p value of χ^2 test for Y chromosome vs autosomes	3	6	
For spermatogonia B cells	1,58E-01	1,05E-01	
For pachytene stage cells	1,79E-01	1,40E-01	
For round spermatids cells	6,27E-01	4,14E-01	
For genes enriched in RS	2,37E-01	1,81E-01	
For RS specific genes	8,22E-04	6,86E-05	
c. Y-linked genes multicopy gene family	RPKM mean in RS	RPKM sum in RS	
<i>Sly</i> (32 out of 126 copies)	1,16	37,09	
<i>Ssty1/2</i> (28 out of 306 copies)	0,92	25,91	
<i>Rbmy</i> (9 out of 30 copies)	3,32	29,92	
<i>Srsy</i> (zero out of 197 copies)			