






**Table S19** Starting states for the calculation of probabilities of the two-locus X chromosome female diplotype of the form  $AA|AB$ , in the generation of four-way RIL by sibling mating

Prototype	No. states	Initial pattern	Initial probability
$AA AB$	4	 (6)	1/2
$AA AC$	4	 (12)	1/2
$AB AC$	4	 (13)	1/2
$AC BC$	2	 (18)	1
$AC CC$	4	 (16)	1/2