

Table S5: Summary of whole-genome sequencing strategies and results

| Mutant | Allele | Lines sequenced | Number of homozygous EMS ¹ mutations in exons and splice sites |
|--------|----------------|--------------------------------|---|
| R330 | <i>sdp1-6</i> | 7 pooled F ₃ lines | 6 |
| R751 | <i>pxa1-4</i> | 5 pooled M ₄ lines | 74 |
| R574 | <i>acx1-4</i> | 11 pooled F ₃ lines | 7 |
| R778 | <i>mfp2-7</i> | 5 pooled F ₃ lines | 6 |
| R809 | <i>mfp2-8</i> | 6 pooled F ₃ lines | 15 |
| R332 | <i>mls-4</i> | 14 pooled F ₃ lines | 5 |
| R291 | <i>icl-3</i> | 7 pooled F ₃ lines | 6 |
| R601 | <i>icl-4</i> | 14 pooled F ₃ lines | 2 |
| R951 | <i>icl-5</i> | 7 pooled M ₄ lines | 34 |
| R92 | <i>pmdh1-2</i> | 10 pooled F ₃ lines | 15 |
| R541 | <i>mdar4-6</i> | 19 pooled F ₃ lines | 1 |
| R577 | <i>mdar4-6</i> | 3 pooled M ₄ lines | 54 |
| R109 | <i>lon2-8</i> | 5 pooled F ₃ lines | 21 |
| R402 | <i>drp3a-5</i> | 42 pooled F ₃ lines | 5 |
| R79 | <i>pme31-1</i> | 11 pooled F ₃ lines | 4 |
| R363 | <i>pme31-2</i> | 18 pooled F ₃ lines | 7 |
| R992 | <i>pme31-3</i> | 4 pooled M ₄ lines | 58 |

¹EMS mutations include those consistent with EMS mutagenesis: G-to-A or C-to-T