Table S3. List of all mixed Rosetta Stone (MRS) genes and examples of the involved hybrid events with dual identities

| MRS genes | Hybrid gene | Identity | Component gene |
|-----------|-------------|----------|----------------|
| AK131276  | AK131276    | AK097143 | AF424542       |
|           | AK127911    | AK097143 | AF194537       |
|           | AK124820    | AK097143 | AK125972       |
|           | AK125782    | AK097143 | AK125782       |
| AK097143  | AF194537    | AK097143 | AK095784       |
|           | AK097143    | AK097143 | AK095784       |
| AK095784  | AK127905    | AK097143 | AK124620       |
|           | AK125782    | AK125782 | AK125782       |
| NM_006267 | BX537881    | NM_006267 | CR749330       |
|           | NM_006267   | NM_006267 | CR749330       |
| NM_032260 | BX537881    | NM_006267 | CR749330       |
|           | NM_006267   | NM_006267 | CR749330       |
| NM_001012976 | NM_001012976 | NM_001012976 | NM_001012976 |
|           | NM_001012976 | NM_001012976 | NM_001012976 |
| NM_207471 | AK091740    | NM_207471 | AK125962       |
|           | AK125765    | NM_207471 | AK125962       |
|           | AK125765    | AK125765 | AK125765       |
| AK091740  | AK091740    | AK125765 | AK125765       |
|           | AK125765    | AK125765 | AK125765       |
| AK131256  | AK131256    | AK091126 | AF424542       |
|           | AK127911    | AK091126 | AF424542       |
|           | AK127911    | AK091126 | AK125972       |
| AK131313  | AK131313    | AK091126 | AF424542       |
|           | AK127911    | AK091126 | AF424542       |
|           | AK127911    | AK091126 | AK125972       |
| CR749330  | NM_006267   | CR749330 | NM_006267       |
|           | CR749330    | NM_006267 | CR749330       |
|           | NM_006267   | NM_006267 | CR749330       |
|           | NM_006267   | NM_006267 | CR749330       |
| AK125948  | AK095784    | AK125948 | AK095784       |
|           | AK095784    | AK095784 | AK095784       |
|           | AK095784    | AK095784 | AK095784       |

Note: In simplified notation, we use the N-polygon to represent the detected N-hybrid events (i.e., N-hybrid gene is in the center and connects to the corresponding component genes in N vertexes). MRS genes are circumscribed by a rectangle.