

**Dataset S2 Validation of the copy number in wild type inbred and QPM lines**

| <b>Serial number</b> | <b>Inbreds</b> | <b>27-kD zein<sup>1</sup></b> | <b>Copy number</b> | <b>allele type</b> | <b>0707-1<sup>2</sup></b> | <b>Note</b> |
|----------------------|----------------|-------------------------------|--------------------|--------------------|---------------------------|-------------|
| 2103                 | 757            | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2115                 | E600           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2118                 | L061F          | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2127                 | W222           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2128                 | Y223           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2142                 | PN2-8          | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2148                 | W238           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2162                 | M101           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2166                 | E588           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2192                 | chang7-2       | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2199                 | PN2            | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2200                 | 18-599         | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2211                 | zaC546         | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2238                 | yu374          | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2262                 | ye52106        | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2264                 | ye8001         | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2289                 | fangyin        | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2300                 | 7903E          | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2327                 | XF27           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2351                 | 8982           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2352                 | DF20           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2358                 | P167           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2362                 | K22            | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2376                 | M3             | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2383                 | 3189           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2390                 | W344           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2422                 | Ms71           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2426                 | ND246          | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2428                 | Mo24W          | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2437                 | Co109          | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2443                 | W153R          | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2446                 | 4722           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2452                 | shangyin110-1  | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2453                 | 7146           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2458                 | 7327           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2472                 | xun92-8        | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2489                 | guangyou5      | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2491                 | daMO           | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2524                 | xuan6          | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |
| 2530                 | 91huang15      | high                          | 2                  | A+A                | 2070+464                  | WT inbred   |

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|      |            |      |   |     |          |           |
|------|------------|------|---|-----|----------|-----------|
| 2534 | chihuang14 | high | 2 | A+A | 2070+464 | WT inbred |
| 2547 | liao2202   | high | 2 | A+A | 2070+464 | WT inbred |
| 2548 | liao2204   | high | 2 | A+A | 2070+464 | WT inbred |
| 2549 | liao7794   | high | 2 | A+A | 2070+464 | WT inbred |
| 2559 | 96201      | high | 2 | A+A | 2070+464 | WT inbred |
| 2560 | gan41      | high | 2 | A+A | 2070+464 | WT inbred |
| 2568 | 2005       | high | 2 | A+A | 2070+464 | WT inbred |
| 2587 | guan17-1   | high | 2 | A+A | 2070+464 | WT inbred |
| 2616 | wu125      | high | 2 | A+A | 2070+464 | WT inbred |
| 2624 | ning24     | high | 2 | A+A | 2070+464 | WT inbred |
| 2626 | ning45     | high | 2 | A+A | 2070+464 | WT inbred |
| 2631 | NN14B      | high | 2 | A+A | 2070+464 | WT inbred |
| 2686 | H127       | high | 2 | A+A | 2070+464 | WT inbred |
| 2696 | LH54       | high | 2 | A+A | 2070+464 | WT inbred |
| 2713 | PHW03      | high | 2 | A+A | 2070+464 | WT inbred |
| 2733 | Mo17       | high | 2 | A+A | 2070+464 | WT inbred |
| 2742 | Seagu1117  | high | 2 | A+A | 2070+464 | WT inbred |
| 2748 | LH65       | high | 2 | A+A | 2070+464 | WT inbred |
| 2755 | 78371A     | high | 2 | A+A | 2070+464 | WT inbred |
| 2943 | LH162      | high | 2 | A+A | 2070+464 | WT inbred |
| 2949 | RS710      | high | 2 | A+A | 2070+464 | WT inbred |
| 2953 | LH128      | high | 2 | A+A | 2070+464 | WT inbred |
| 3009 | 6M502      | high | 2 | A+A | 2070+464 | WT inbred |
| 3011 | MBST       | high | 2 | A+A | 2070+464 | WT inbred |
| 3020 | WIL900     | high | 2 | A+A | 2070+464 | WT inbred |
| 3024 | E8501      | high | 2 | A+A | 2070+464 | WT inbred |
| 3025 | J8606      | high | 2 | A+A | 2070+464 | WT inbred |
| 3043 | PHW20      | high | 2 | A+A | 2070+464 | WT inbred |
| 2107 | B4         | high | 2 | A+B | 2070+464 | WT inbred |
| 2125 | SC24-1     | high | 2 | A+B | 2070+464 | WT inbred |
| 2135 | B98        | high | 2 | A+B | 2070+464 | WT inbred |
| 2165 | E601       | high | 2 | A+B | 2070+464 | WT inbred |
| 2171 | D33A       | high | 2 | A+B | 2070+464 | WT inbred |
| 2178 | XF223      | high | 2 | A+B | 2070+464 | WT inbred |
| 2243 | qi205      | high | 2 | A+B | 2070+464 | WT inbred |
| 2251 | D886       | high | 2 | A+B | 2070+464 | WT inbred |
| 2260 | cheng698-3 | high | 2 | A+B | 2070+464 | WT inbred |
| 2272 | R017       | high | 2 | A+B | 2070+464 | WT inbred |
| 2309 | BM         | high | 2 | A+B | 2070+464 | WT inbred |
| 2312 | R25        | high | 2 | A+B | 2070+464 | WT inbred |
| 2324 | Los-6      | high | 2 | A+B | 2070+464 | WT inbred |
| 2333 | 802        | high | 2 | A+B | 2070+464 | WT inbred |
| 2334 | SC11-1     | high | 2 | A+B | 2070+464 | WT inbred |

|      |              |      |   |     |          |           |
|------|--------------|------|---|-----|----------|-----------|
| 2364 | 68139        | high | 2 | A+B | 2070+464 | WT inbred |
| 2468 | 140          | high | 2 | A+B | 2070+464 | WT inbred |
| 2482 | zhong128     | high | 2 | A+B | 2070+464 | WT inbred |
| 2483 | zhong451     | high | 2 | A+B | 2070+464 | WT inbred |
| 2484 | zhonghuang64 | high | 2 | A+B | 2070+464 | WT inbred |
| 2511 | ji432        | high | 2 | A+B | 2070+464 | WT inbred |
| 2543 | fu96         | high | 2 | A+B | 2070+464 | WT inbred |
| 2603 | yue89E4-2    | high | 2 | A+B | 2070+464 | WT inbred |
| 2669 | yuanwu05     | high | 2 | A+B | 2070+464 | WT inbred |
| 2691 | LH93         | high | 2 | A+B | 2070+464 | WT inbred |
| 2693 | 807          | high | 2 | A+B | 2070+464 | WT inbred |
| 2952 | BCC03        | high | 2 | A+B | 2070+464 | WT inbred |
| 2956 | PHK93        | high | 2 | A+B | 2070+464 | WT inbred |
| 3008 | 2MA22        | high | 2 | A+B | 2070+464 | WT inbred |
| 2097 | shen5005     | low  | 1 | A   | 2070     | WT inbred |
| 2101 | mei68113     | low  | 1 | A   | 2070     | WT inbred |
| 2114 | N138         | low  | 1 | A   | 2070     | WT inbred |
| 2120 | DM101B       | low  | 1 | A   | 2070     | WT inbred |
| 2121 | D88          | low  | 1 | A   | 2070     | WT inbred |
| 2129 | GN4095       | low  | 1 | A   | 2070     | WT inbred |
| 2136 | B95          | low  | 1 | A   | 2070     | WT inbred |
| 2139 | SC-9         | low  | 1 | A   | 2070     | WT inbred |
| 2140 | 4003         | low  | 1 | A   | 2070     | WT inbred |
| 2143 | KP3130       | low  | 1 | A   | 2070     | WT inbred |
| 2144 | L-1          | low  | 1 | A   | 2070     | WT inbred |
| 2151 | W668         | low  | 1 | A   | 2070     | WT inbred |
| 2153 | W969         | low  | 1 | A   | 2070     | WT inbred |
| 2154 | W968         | low  | 1 | A   | 2070     | WT inbred |
| 2163 | 2005-4       | low  | 1 | A   | 2070     | WT inbred |
| 2167 | B394         | low  | 1 | A   | 2070     | WT inbred |
| 2169 | huangchanga  | low  | 1 | A   | 2070     | WT inbred |
| 2172 | huangchangb  | low  | 1 | A   | 2070     | WT inbred |
| 2173 | W499         | low  | 1 | A   | 2070     | WT inbred |
| 2185 | jian1495b    | low  | 1 | A   | 2070     | WT inbred |
| 2189 | T24          | low  | 1 | A   | 2070     | WT inbred |
| 2196 | L473         | low  | 1 | A   | 2070     | WT inbred |
| 2198 | equn4        | low  | 1 | A   | 2070     | WT inbred |
| 2208 | ji444        | low  | 1 | A   | 2070     | WT inbred |
| 2210 | huangyesi3   | low  | 1 | A   | 2070     | WT inbred |
| 2212 | ji63         | low  | 1 | A   | 2070     | WT inbred |
| 2214 | H21          | low  | 1 | A   | 2070     | WT inbred |
| 2220 | MO113        | low  | 1 | A   | 2070     | WT inbred |
| 2228 | zheng32      | low  | 1 | A   | 2070     | WT inbred |

|      |            |     |   |   |      |           |
|------|------------|-----|---|---|------|-----------|
| 2229 | zheng653   | low | 1 | A | 2070 | WT inbred |
| 2236 | ye832      | low | 1 | A | 2070 | WT inbred |
| 2248 | D869       | low | 1 | A | 2070 | WT inbred |
| 2254 | D1051      | low | 1 | A | 2070 | WT inbred |
| 2258 | nan21-3    | low | 1 | A | 2070 | WT inbred |
| 2259 | K14        | low | 1 | A | 2070 | WT inbred |
| 2261 | Q1261      | low | 1 | A | 2070 | WT inbred |
| 2273 | 200B       | low | 1 | A | 2070 | WT inbred |
| 2284 | huangzaosi | low | 1 | A | 2070 | WT inbred |
| 2290 | GY3        | low | 1 | A | 2070 | WT inbred |
| 2294 | 4936       | low | 1 | A | 2070 | WT inbred |
| 2297 | e220       | low | 1 | A | 2070 | WT inbred |
| 2313 | R150       | low | 1 | A | 2070 | WT inbred |
| 2318 | qi319      | low | 1 | A | 2070 | WT inbred |
| 2319 | xing230    | low | 1 | A | 2070 | WT inbred |
| 2329 | huo17      | low | 1 | A | 2070 | WT inbred |
| 2341 | PH6WC      | low | 1 | A | 2070 | WT inbred |
| 2342 | PH4CV      | low | 1 | A | 2070 | WT inbred |
| 2343 | hai9-21    | low | 1 | A | 2070 | WT inbred |
| 2345 | DH65232    | low | 1 | A | 2070 | WT inbred |
| 2346 | J1533      | low | 1 | A | 2070 | WT inbred |
| 2350 | A801       | low | 1 | A | 2070 | WT inbred |
| 2355 | DF24       | low | 1 | A | 2070 | WT inbred |
| 2361 | shen977    | low | 1 | A | 2070 | WT inbred |
| 2370 | 178        | low | 1 | A | 2070 | WT inbred |
| 2373 | 150-4      | low | 1 | A | 2070 | WT inbred |
| 2379 | 9710       | low | 1 | A | 2070 | WT inbred |
| 2380 | 9711       | low | 1 | A | 2070 | WT inbred |
| 2386 | 196        | low | 1 | A | 2070 | WT inbred |
| 2391 | 68122      | low | 1 | A | 2070 | WT inbred |
| 2395 | shan89     | low | 1 | A | 2070 | WT inbred |
| 2398 | 5023       | low | 1 | A | 2070 | WT inbred |
| 2410 | 1121       | low | 1 | A | 2070 | WT inbred |
| 2416 | Ay420      | low | 1 | A | 2070 | WT inbred |
| 2420 | A619       | low | 1 | A | 2070 | WT inbred |
| 2424 | B76        | low | 1 | A | 2070 | WT inbred |
| 2427 | CM105      | low | 1 | A | 2070 | WT inbred |
| 2436 | A679       | low | 1 | A | 2070 | WT inbred |
| 2440 | W182bn     | low | 1 | A | 2070 | WT inbred |
| 2444 | W117       | low | 1 | A | 2070 | WT inbred |
| 2455 | jiao51     | low | 1 | A | 2070 | WT inbred |
| 2457 | 77         | low | 1 | A | 2070 | WT inbred |
| 2461 | yun147     | low | 1 | A | 2070 | WT inbred |

|      |              |     |   |   |      |           |
|------|--------------|-----|---|---|------|-----------|
| 2462 | HHe01        | low | 1 | A | 2070 | WT inbred |
| 2464 | W2H03        | low | 1 | A | 2070 | WT inbred |
| 2475 | CT109        | low | 1 | A | 2070 | WT inbred |
| 2476 | yu82         | low | 1 | A | 2070 | WT inbred |
| 2477 | Lx9801       | low | 1 | A | 2070 | WT inbred |
| 2485 | han49        | low | 1 | A | 2070 | WT inbred |
| 2494 | yi49         | low | 1 | A | 2070 | WT inbred |
| 2500 | Lo1125       | low | 1 | A | 2070 | WT inbred |
| 2504 | shen135      | low | 1 | A | 2070 | WT inbred |
| 2507 | cheng435     | low | 1 | A | 2070 | WT inbred |
| 2510 | bai197       | low | 1 | A | 2070 | WT inbred |
| 2519 | jinsui54     | low | 1 | A | 2070 | WT inbred |
| 2520 | 84-126-15-1  | low | 1 | A | 2070 | WT inbred |
| 2533 | 91huang10    | low | 1 | A | 2070 | WT inbred |
| 2540 | chaoxianbai  | low | 1 | A | 2070 | WT inbred |
| 2541 | B12          | low | 1 | A | 2070 | WT inbred |
| 2569 | lu65         | low | 1 | A | 2070 | WT inbred |
| 2572 | yan156       | low | 1 | A | 2070 | WT inbred |
| 2573 | yan103       | low | 1 | A | 2070 | WT inbred |
| 2574 | yan172       | low | 1 | A | 2070 | WT inbred |
| 2583 | 200-24-13413 | low | 1 | A | 2070 | WT inbred |
| 2590 | jiao05       | low | 1 | A | 2070 | WT inbred |
| 2593 | zheng58      | low | 1 | A | 2070 | WT inbred |
| 2597 | da255        | low | 1 | A | 2070 | WT inbred |
| 2598 | 897          | low | 1 | A | 2070 | WT inbred |
| 2599 | zhonger/02   | low | 1 | A | 2070 | WT inbred |
| 2604 | yue39-4      | low | 1 | A | 2070 | WT inbred |
| 2606 | shuangM9B-1  | low | 1 | A | 2070 | WT inbred |
| 2608 | cai11-8      | low | 1 | A | 2070 | WT inbred |
| 2615 | SZ3          | low | 1 | A | 2070 | WT inbred |
| 2620 | L069         | low | 1 | A | 2070 | WT inbred |
| 2625 | ning37       | low | 1 | A | 2070 | WT inbred |
| 2630 | zhongyin15   | low | 1 | A | 2070 | WT inbred |
| 2637 | 72-125       | low | 1 | A | 2070 | WT inbred |
| 2664 | han21        | low | 1 | A | 2070 | WT inbred |
| 2690 | F42          | low | 1 | A | 2070 | WT inbred |
| 2692 | B47          | low | 1 | A | 2070 | WT inbred |
| 2697 | DJ7          | low | 1 | A | 2070 | WT inbred |
| 2710 | PHJ75        | low | 1 | A | 2070 | WT inbred |
| 2712 | PHN29        | low | 1 | A | 2070 | WT inbred |
| 2716 | LH190        | low | 1 | A | 2070 | WT inbred |
| 2717 | IBC2         | low | 1 | A | 2070 | WT inbred |
| 2721 | PHV78        | low | 1 | A | 2070 | WT inbred |

|      |              |     |   |   |      |           |
|------|--------------|-----|---|---|------|-----------|
| 2726 | PB80         | low | 1 | A | 2070 | WT inbred |
| 2732 | PH207        | low | 1 | A | 2070 | WT inbred |
| 2745 | PHK42        | low | 1 | A | 2070 | WT inbred |
| 2746 | PHT55        | low | 1 | A | 2070 | WT inbred |
| 2747 | OH43         | low | 1 | A | 2070 | WT inbred |
| 2753 | LH82         | low | 1 | A | 2070 | WT inbred |
| 2757 | IBB14        | low | 1 | A | 2070 | WT inbred |
| 2758 | PHH93        | low | 1 | A | 2070 | WT inbred |
| 2760 | PHP02        | low | 1 | A | 2070 | WT inbred |
| 2764 | 78551S       | low | 1 | A | 2070 | WT inbred |
| 2774 | LH1          | low | 1 | A | 2070 | WT inbred |
| 2941 | LH196        | low | 1 | A | 2070 | WT inbred |
| 2955 | Lp215D       | low | 1 | A | 2070 | WT inbred |
| 2961 | PHW30        | low | 1 | A | 2070 | WT inbred |
| 2963 | MBSJ         | low | 1 | A | 2070 | WT inbred |
| 2965 | LH215        | low | 1 | A | 2070 | WT inbred |
| 2966 | MM402A       | low | 1 | A | 2070 | WT inbred |
| 2968 | LIBC4        | low | 1 | A | 2070 | WT inbred |
| 2969 | 83IBI3       | low | 1 | A | 2070 | WT inbred |
| 2973 | PHPR5        | low | 1 | A | 2070 | WT inbred |
| 2977 | PHNV9        | low | 1 | A | 2070 | WT inbred |
| 2979 | ML606        | low | 1 | A | 2070 | WT inbred |
| 2990 | IB014        | low | 1 | A | 2070 | WT inbred |
| 2992 | LH150        | low | 1 | A | 2070 | WT inbred |
| 3003 | IBB15        | low | 1 | A | 2070 | WT inbred |
| 3006 | 11430        | low | 1 | A | 2070 | WT inbred |
| 3013 | NS501        | low | 1 | A | 2070 | WT inbred |
| 3014 | OQ603        | low | 1 | A | 2070 | WT inbred |
| 3026 | L127         | low | 1 | A | 2070 | WT inbred |
| 3027 | L135         | low | 1 | A | 2070 | WT inbred |
| 3028 | L139         | low | 1 | A | 2070 | WT inbred |
| 3032 | PHK35        | low | 1 | A | 2070 | WT inbred |
| 3033 | PHM10        | low | 1 | A | 2070 | WT inbred |
| 3034 | PHN37        | low | 1 | A | 2070 | WT inbred |
| 3037 | PHP55        | low | 1 | A | 2070 | WT inbred |
| 3041 | PHT22        | low | 1 | A | 2070 | WT inbred |
| 2131 | LM-2         | low | 1 | B | 2070 | WT inbred |
| 2253 | D1049        | low | 1 | B | 2070 | WT inbred |
| 2328 | huotanghuang | low | 1 | B | 2070 | WT inbred |
| 2454 | CT52C        | low | 1 | B | 2070 | WT inbred |
| 2478 | E28          | low | 1 | B | 2070 | WT inbred |
| 2605 | M9           | low | 1 | B | 2070 | WT inbred |
| 2668 | huobai       | low | 1 | B | 2070 | WT inbred |

|          |                       |      |   |     |          |          |
|----------|-----------------------|------|---|-----|----------|----------|
| YN4      | CML 150               | high | 2 | A+A | 2070+464 | QPM line |
| YN9      | CML 161               | high | 2 | A+A | 2070+464 | QPM line |
| YN11     | CML 163               | high | 2 | A+A | 2070+464 | QPM line |
| YN12     | CML 167               | high | 2 | A+A | 2070+464 | QPM line |
| YN14     | CML 177               | high | 2 | A+A | 2070+464 | QPM line |
| YN15     | CML 180               | high | 2 | A+A | 2070+464 | QPM line |
| YN16     | CML 182               | high | 2 | A+A | 2070+464 | QPM line |
| YN18     | CML 491               | high | 2 | A+A | 2070+464 | QPM line |
| YN21     | JH12A521-148          | high | 2 | A+A | 2070+464 | QPM line |
| YN26     | JH12A521-160          | high | 2 | A+A | 2070+464 | QPM line |
| YN28     | JH12A521-172          | high | 2 | A+A | 2070+464 | QPM line |
| YN32     | JH12A521-181          | high | 2 | A+A | 2070+464 | QPM line |
| YN34     | JH12A521-524          | high | 2 | A+A | 2070+464 | QPM line |
| YN35     | JH12A521-526          | high | 2 | A+A | 2070+464 | QPM line |
| YN10     | CML 162               | high | 2 | A+A | 2070+464 | QPM line |
| K0326Y   | K0326Y                | high | 2 | A+A | 2070+464 | QPM line |
| YN29     | JH12A521-175          | high | 2 | A+B | 2070+464 | QPM line |
| YN1      | CML 142               | high | 2 | A+B | 2070+464 | QPM line |
| YN2      | CML 143               | high | 2 | A+B | 2070+464 | QPM line |
| YN3      | CML 146               | high | 2 | A+B | 2070+464 | QPM line |
| YN5      | CML 151               | high | 2 | A+B | 2070+464 | QPM line |
| YN6      | CML 152               | high | 2 | A+B | 2070+464 | QPM line |
| YN7      | CML 158               | high | 2 | A+B | 2070+464 | QPM line |
| YN8      | CML 159               | high | 2 | A+B | 2070+464 | QPM line |
| YN13     | CML 170               | high | 2 | A+B | 2070+464 | QPM line |
| YN17     | CML 490               | high | 2 | A+B | 2070+464 | QPM line |
| YN19     | CML 493               | high | 2 | A+B | 2070+464 | QPM line |
| YN22     | JH12A521-153          | high | 2 | A+B | 2070+464 | QPM line |
| YN23     | JH12A521-154          | high | 2 | A+B | 2070+464 | QPM line |
| YN24     | JH12A521-156          | high | 2 | A+B | 2070+464 | QPM line |
| YN25     | JH12A521-157          | high | 2 | A+B | 2070+464 | QPM line |
| YN27     | JH12A521-164          | high | 2 | A+B | 2070+464 | QPM line |
| YN30     | JH12A521-178          | high | 2 | A+B | 2070+464 | QPM line |
| YN31     | JH12A521-179          | high | 2 | A+B | 2070+464 | QPM line |
| YN33     | JH12A521-165          | high | 2 | A+B | 2070+464 | QPM line |
| YN38     | CML172                | high | 2 | A+B | 2070+464 | QPM line |
| YN40     | Xin<br>901-1/02-2-3-2 | high | 2 | A+B | 2070+464 | QPM line |
| CM105Mo2 | CM105Mo2              | high | 2 | A+B | 2070+464 | QPM line |

27-kD zein<sup>1</sup> refers to the expression levels of 27-kDa  $\gamma$ -zein in different WT and QPM inbred lines analyzed by SDS-PAGE. Low represents that the expression of 27-kDa  $\gamma$ -zein is lower than B73 and high higher than B73.

0707-1<sup>2</sup> refers to the primer marker, which flanks a 1606-bp deletion in the 3' region

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of the duplicated GRMZM2G138976 gene that would give rise to one (2070 bp) or two DNA bands (2070 and 464 bp), depending on the absence or presence of the duplication.