Table S1 Table showing nomenclatured gene name locus ID detailed genomic information *B. distachyon* inbred lines MPKs.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Inbred Lines | Gene Name | Locus ID | Orthologous genes in Bd21 | Orientation | ORF | No. of a.a | No. of introns | 5’-3’ Coordinate |
| EDF+ | | | | | | | | |
| Arn1 | Arn1MPK3 | Brdisv1Arn11011015m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:57619348-57621877 |
|  | Arn1MPK4 | Brdisv1Arn11035810m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_4:27549707-27554054 |
|  | Arn1MPK6 | Brdisv1Arn11008028m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1: 42095232-42100896 |
|  | Arn1MPK7-1 | Brdisv1Arn11046100m | Bradi1g34030 | - | 687 | 228 | 0 | pseudomolecule\_8:30677472-30678158 |
|  | Arn1MPK11 | Brdisv1Arn11033533m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:13060328-13063697 |
|  | Arn1MPK14 | Brdisv1Arn11031405m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:2370046-2374309 |
|  | Arn1MPK16 | Brdisv1Arn11018776m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:30043692-30050292 |
|  | Arn1MPK17 | Brdisv1Arn11005910m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:28582501-28587796 |
|  | Arn1MPK20-1 | Brdisv1Arn11020271m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:39067944-39074469 |
|  | Arn1MPK20-2 | Brdisv1Arn11015876m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_2:13071808-13077241 |
|  | Arn1MPK20-3 | Brdisv1Arn11006673m | Bradi1g41780 | + | 1266 | 421 | 8 | pseudomolecule\_1:33750344-33764170 |
|  | Arn1MPK20-4 | Brdisv1Arn11020500m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:40481670-40487636 |
|  | Arn1MPK20-5 | Brdisv1Arn11016028m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:13803843-13808890 |
|  | Arn1MPK21-1 | Brdisv1Arn11015925m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:13288052-13293600 |
|  | Arn1MPK21-2 | Brdisv1Arn11020368m | Bradi2g45006 | - | 1233 | 410 | 7 | pseudomolecule\_2:39724678-39731022 |
| Mon3 | Mon3MPK3 | Brdisv1Mon31010203m | Bradi1g65810 | + | 1572 | 524 | 4 | pseudomolecule\_1:49055040..49057569 |
|  | Mon3MPK4 | Brdisv1Mon31011000m | Bradi3g32000 | - | 1134 | 377 | 7 | pseudomolecule\_1:52493925..52500012 |
|  | Mon3MPK6 | Brdisv1Mon31007506m | Bradi1g49100 | + | 1152 | 383 | 5 | pseudomolecule\_1:36286137..36294709 |
|  | Mon3MPK7-1 | Brdisv1Mon31044972m | Bradi1g34030 | - | 645 | 214 | 1 | pseudomolecule\_8:64259660..64260799 |
|  | Mon3MPK11 | Brdisv1Mon31031562m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:11799544..11804261 |
|  | Mon3MPK14 | Brdisv1Mon31029522m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:2103863..2109832 |
|  | Mon3MPK16 | Brdisv1Mon31017564m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:25992974..26001477 |
|  | Mon3MPK17 | Brdisv1Mon31005542m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:24902370..24909739 |
|  | Mon3MPK20-1 | Brdisv1Mon31018835m | Bradi2g44350 | + | 1848 | 615 | 9 | pseudomolecule\_2:32769118..32778188 |
|  | Mon3MPK20-2 | Brdisv1Mon31014790m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_2:12049323..12056901 |
|  | Mon3MPK20-3 | Brdisv1Mon31006289m | Bradi1g41780 | + | 1266 | 421 | 8 | pseudomolecule\_1:29362283..29381677 |
|  | Mon3MPK20-4 | Brdisv1Mon31019053m | Bradi2g45870 | - | 1743 | 580 | 9 | pseudomolecule\_2:33957396..33965248 |
|  | Mon3MPK20-5 | Brdisv1Mon31014926m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:12707849..12714528 |
|  | Mon3MPK21-1 | Brdisv1Mon31014824m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:12173898..12181666 |
|  | Mon3MPK21-2 | Brdisv1Mon31018928m | Bradi2g45006 | - | 1449 | 482 | 7 | pseudomolecule\_2:33191019..33197649 |
| BdTR7a | BdTR7aMPK3 | Brdisv1BdTR7a1011021m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:55342868..55346409 |
|  | BdTR7aMPK4 | Brdisv1BdTR7a1035227m | Bradi3g32000 | + | 1131 | 376 | 7 | pseudomolecule\_4:23774971..23781075 |
|  | BdTR7aMPK6 | Brdisv1BdTR7a1008045m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:40377253..40386206 |
|  | BdTR7aMPK7-1 | Brdisv1BdTR7a1005883m | Bradi1g34030 | + | 1242 | 413 | 2 | pseudomolecule\_1:27537203..27541222 |
|  | BdTR7aMPK11 | Brdisv1BdTR7a1033281m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:12413285..12416936 |
|  | BdTR7aMPK14 | Brdisv1BdTR7a1031219m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:2445866..2451828 |
|  | BdTR7aMPK16 | Brdisv1BdTR7a1018519m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:27998541..28007040 |
|  | BdTR7aMPK17 | Brdisv1BdTR7a1006004m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:28146836..28154197 |
|  | BdTR7aMPK20-1 | Brdisv1BdTR7a1020019m | Bradi2g44350 | + | 1848 | 615 | 9 | pseudomolecule\_2:36541419..36550489 |
|  | BdTR7aMPK20-2 | Brdisv1BdTR7a1015768m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_2:12949736..12957353 |
|  | BdTR7aMPK20-3 | Brdisv1BdTR7a1006751m | Bradi1g41780 | + | 624 | 208 | 3 | pseudomolecule\_1:32680245..32687033 |
|  | BdTR7aMPK20-4 | Brdisv1BdTR7a1020237m | Bradi2g45870 | + | 1701 | 566 | 9 | pseudomolecule\_2:37679189..37685383 |
|  | BdTR7aMPK20-5 | Brdisv1BdTR7a1015928m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:13715405..13722081 |
|  | BdTR7aMPK21-1 | Brdisv1BdTR7a1015824m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:13173018..13180789 |
|  | BdTR7aMPK21-2 | Brdisv1BdTR7a1020100m | Bradi2g45006 | - | 1449 | 482 | 7 | pseudomolecule\_2:36957919..36964548 |
| BdTR8i | BdTR8iMPK3 | Brdisv1BdTR8i1010712m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:55574941..55578482 |
|  | BdTR8iMPK4 | Brdisv1BdTR8i1027174m | Bradi3g32000 | + | 1143 | 380 | 7 | pseudomolecule\_3:25152497..25158619 |
|  | BdTR8iMPK6 | Brdisv1BdTR8i1007684m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:39869569..39878519 |
|  | BdTR8iMPK7-1 | Brdisv1BdTR8i1005547m | Bradi1g34030 | + | 1242 | 413 | 2 | pseudomolecule\_1:26734910..26738935 |
|  | BdTR8iMPK11 | Brdisv1BdTR8i1025152m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_3:12622182..12626894 |
|  | BdTR8iMPK14 | Brdisv1BdTR8i1023107m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_3:2406713..2412676 |
|  | BdTR8iMPK16 | Brdisv1BdTR8i1018031m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:27715767..27724276 |
|  | BdTR8iMPK17 | Brdisv1BdTR8i1005684m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:27498121..27505482 |
|  | BdTR8iMPK20-1 | Brdisv1BdTR8i1019342m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:34710712..34719782 |
|  | BdTR8iMPK20-2 | Brdisv1BdTR8i1015298m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_2:12391412..12398873 |
|  | BdTR8iMPK20-3 | Brdisv1BdTR8i1006471m | Bradi1g41780 | + | 1266 | 421 | 8 | pseudomolecule\_1:32589560..32604166 |
|  | BdTR8iMPK20-4 | Brdisv1BdTR8i1019564m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:36003514..36011876 |
|  | BdTR8iMPK20-5 | Brdisv1BdTR8i1015450m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:13106197..13112873 |
|  | BdTR8iMPK21-1 | Brdisv1BdTR8i1015345m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:12574452..12582226 |
|  | BdTR8iMPK21-2 | Brdisv1BdTR8i1019424m | Bradi2g45006 | - | 1149 | 482 | 7 | pseudomolecule\_2:35161328..35167957 |
| Tek-2 | Tek-2MPK3 | Brdisv1Tek-21010027m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:43412456..43415997 |
|  | Tek-2MPK4 | Brdisv1Tek-21010816m | Bradi3g32000 | - | 1143 | 380 | 7 | pseudomolecule\_1:46731059..46737181 |
|  | Tek-2MPK6 | Brdisv1Tek-21007328m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:31662592..31671539 |
|  | Tek-2MPK7-1 | Brdisv1Tek-21005308m | Bradi1g34030 | + | 1242 | 413 | 2 | pseudomolecule\_1:22212657..22216682 |
|  | Tek-2MPK11 | Brdisv1Tek-21030943m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:11063901..11068613 |
|  | Tek-2MPK14 | Brdisv1Tek-21028844m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:2270600..2276563 |
|  | Tek-2MPK16 | Brdisv1Tek-21017203m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:21608902..21617411 |
|  | Tek-2MPK17 | Brdisv1Tek-21005426m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:22739780..22747200 |
|  | Tek-2MPK20-1 | Brdisv1Tek-21018480m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:27442614..27451684 |
|  | Tek-2MPK20-2 | Brdisv1Tek-21043384m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_7:19991157..19998618 |
|  | Tek-2MPK20-3 | Brdisv1Tek-21043278m | Bradi1g41780 | - | 651 | 216 | 3 | pseudomolecule\_7:18850093..18857064 |
|  | Tek-2MPK20-4 | Brdisv1Tek-21018691m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:28438902..28447301 |
|  | Tek-2MPK20-5 | Brdisv1Tek-21014805m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:11355962..11362638 |
|  | Tek-2MPK21-1 | Brdisv1Tek-21014698m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:10913070..10920844 |
|  | Tek-2MPK21-2 | Brdisv1Tek-21018561m | Bradi2g45006 | - | 1149 | 482 | 7 | pseudomolecule\_2:27789378..27796007 |
| Tek-4 | Tek-4MPK3 | Brdisv1Tek-41030977m | Bradi1g65810 | + | 936 | 312 | 3 | pseudomolecule\_8:41813551..41815455 |
|  | Tek-4MPK4 | Brdisv1Tek-41029583m | Bradi3g32000 | + | 1143 | 380 | 5 | pseudomolecule\_8:34282549..34287072 |
|  | Tek-4MPK6 | Brdisv1Tek-41035605m | Bradi1g49100 | - | 810 | 269 | 3 | pseudomolecule\_8:67096582..67100480 |
|  | Tek-4MPK7-1 | Brdisv1Tek-41014125m | Bradi1g34030 | + | 1119 | 372 | 1 | pseudomolecule\_3:7396306..7399021 |
|  | Tek-4MPK11 | Brdisv1Tek-41017616m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:5309905..5314617 |
|  | Tek-4MPK14 | Brdisv1Tek-41016381m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:1101634..1107597 |
|  | Tek-4MPK16 | Brdisv1Tek-41034938m | Bradi2g36470 | - | 552 | 183 | 2 | pseudomolecule\_8:63284225..63286623 |
|  | Tek-4MPK17 | Brdisv1Tek-41003047m | Bradi1g34700 | + | 1746 | 581 | 11 | pseudomolecule\_1:10069634..10084942 |
|  | Tek-4MPK20-1 | Brdisv1Tek-41029227m | Bradi2g44350 | + | 627 | 208 | 4 | pseudomolecule\_8:32456805..32460759 |
|  | Tek-4MPK20-2 | Brdisv1Tek-41027315m | Bradi2g15317 | - | 1827 | 608 | 9 | pseudomolecule\_8:22261266..22268354 |
|  | Tek-4MPK20-3 | Brdisv1Tek-41027738m | Bradi1g41780 | + | 624 | 208 | 3 | pseudomolecule\_8:24493554..24500488 |
|  | Tek-4MPK20-5 | Brdisv1Tek-41008316m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:5517487..5524163 |
|  | Tek-4MPK21-1 | Brdisv1Tek-41008225m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:5255903..5263677 |
|  | Tek-4MPK21-2 | Brdisv1Tek-41031014m | Bradi2g45006 | - | 846 | 281 | 5 | pseudomolecule\_8:42051868..42056440 |
| Bd29-1 | Bd29-1MPK3 | Brdisv1Bd29-11009003m | Bradi2g16337 | + | 1110 | 369 | 4 | pseudomolecule\_1:38455438..38458979 |
|  | Bd29-1MPK4 | Brdisv1Bd29-11009699m | Bradi2g15620 | - | 1131 | 376 | 7 | pseudomolecule\_1:41304278..41310400 |
|  | Bd29-1MPK6 | Brdisv1Bd29-11006575m | Bradi2g45006 | + | 1176 | 391 | 5 | pseudomolecule\_1:28134913..28143863 |
|  | Bd29-1MPK7-1 | Brdisv1Bd29-11022801m | Bradi2g16337 | + | 1242 | 413 | 2 | pseudomolecule\_3:15076390..15081067 |
|  | Bd29-1MPK11 | Brdisv1Bd29-11027994m | Bradi2g15620 | - | 1164 | 387 | 5 | pseudomolecule\_4:9666102..9670818 |
|  | Bd29-1MPK14 | Brdisv1Bd29-11039982m | Bradi2g45006 | - | 1110 | 369 | 1 | pseudomolecule\_8:27033227..27037211 |
|  | Bd29-1MPK16 | Brdisv1Bd29-11015609m | Bradi2g16337 | - | 1635 | 544 | 9 | pseudomolecule\_2:20215341..20223843 |
|  | Bd29-1MPK17 | Brdisv1Bd29-11004857m | Bradi2g15620 | + | 1746 | 581 | 10 | pseudomolecule\_1:19816626..19823987 |
|  | Bd29-1MPK20-1 | Brdisv1Bd29-11016791m | Bradi2g45006 | + | 1848 | 615 | 9 | pseudomolecule\_2:25531399..25540469 |
|  | Bd29-1MPK20-2 | Brdisv1Bd29-11013150m | Bradi2g16337 | + | 1827 | 608 | 9 | pseudomolecule\_2:9624587..9631754 |
|  | Bd29-1MPK20-3 | Brdisv1Bd29-11005433m | Bradi2g15620 | + | 624 | 208 | 3 | pseudomolecule\_1:22601747..22608535 |
|  | Bd29-1MPK20-4 | Brdisv1Bd29-11016979m | Bradi2g45006 | + | 1743 | 580 | 9 | pseudomolecule\_2:26370985..26379263 |
|  | Bd29-1MPK20-5 | Brdisv1Bd29-11013304m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:10234687..10241363 |
|  | Bd29-1MPK21-1 | Brdisv1Bd29-11013190m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:9767609..9775383 |
|  | Bd29-1MPK21-2 | Brdisv1Bd29-11016866m | Bradi2g45006 | - | 1449 | 482 | 7 | pseudomolecule\_2:25810884..25817513 |
| ABR9 | ABR9MPK3 | Brdisv1ABR9\_r1011010m | Bradi2g16337 | + | 1110 | 369 | 4 | pseudomolecule\_1:58534758..58538299 |
|  | ABR9MPK4 | Brdisv1ABR9\_r1026988m | Bradi2g15620 | + | 1131 | 376 | 5 | pseudomolecule\_4:27363420..27367632 |
|  | ABR9MPK6 | Brdisv1ABR9\_r1007931m | Bradi2g45006 | + | 1176 | 391 | 5 | pseudomolecule\_1:42255050..42264000 |
|  | ABR9MPK7-1 | Brdisv1ABR9\_r1035091m | Bradi2g16337 | - | 1119 | 372 | 1 | pseudomolecule\_7:32552093..32554192 |
|  | ABR9MPK11 | Brdisv1ABR9\_r1025789m | Bradi2g15620 | - | 1164 | 387 | 5 | pseudomolecule\_4:13636588..13640242 |
|  | ABR9MPK14 | Brdisv1ABR9\_r1024459m | Bradi2g45006 | - | 1110 | 369 | 1 | pseudomolecule\_4:2553318..2556747 |
|  | ABR9MPK16 | Brdisv1ABR9\_r1016603m | Bradi2g16337 | - | 1635 | 544 | 8 | pseudomolecule\_2:31053209..31059131 |
|  | ABR9MPK17 | Brdisv1ABR9\_r1005736m | Bradi2g15620 | + | 1746 | 581 | 10 | pseudomolecule\_1:27606300..27613661 |
|  | ABR9MPK20-1 | Brdisv1ABR9\_r1017513m | Bradi2g45006 | - | 1848 | 615 | 9 | pseudomolecule\_2:40206601..40214393 |
|  | ABR9MPK20-2 | Brdisv1ABR9\_r1014888m | Bradi2g16337 | + | 1827 | 608 | 9 | pseudomolecule\_2:13963550..13969976 |
|  | ABR9MPK20-3 | Brdisv1ABR9\_r1006567m | Bradi2g15620 | + | 1266 | 421 | 8 | pseudomolecule\_1:33597630..33617027 |
|  | ABR9MPK20-4 | Brdisv1ABR9\_r1017678m | Bradi2g45006 | + | 1743 | 580 | 9 | pseudomolecule\_2:41650318..41657018 |
|  | ABR9MPK20-5 | Brdisv1ABR9\_r1015005m | Bradi2g16337 | + | 1653 | 550 | 9 | pseudomolecule\_2:14678875..14683321 |
|  | ABR9MPK21-1 | Brdisv1ABR9\_r1014923m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:14147809..14154502 |
|  | ABR9MPK21-2 | Brdisv1ABR9\_r1017558m | Bradi2g45006 | - | 1230 | 409 | 8 | pseudomolecule\_2:40679785..40688731 |
| Bd1-1 | Bd1-1MPK3 | Brdisv1Bd1-11009760m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:44867005..44870546 |
|  | Bd1-1MPK4 | Brdisv1Bd1-11024723m | Bradi3g32000 | + | 1143 | 380 | 7 | pseudomolecule\_3:18607349..1861347 |
|  | Bd1-1MPK6 | Brdisv1Bd1-11006994m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:32108331..32117281 |
|  | Bd1-1MPK11 | Brdisv1Bd1-11023075m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_3:10575922..10580634 |
|  | Bd1-1MPK14 | Brdisv1Bd1-11021222m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_3:2264970..2270932 |
|  | Bd1-1MPK16 | Brdisv1Bd1-11016431m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:21493583..21502080 |
|  | Bd1-1MPK17 | Brdisv1Bd1-11005322m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:23731715..23739076 |
|  | Bd1-1MPK20-1 | Brdisv1Bd1-11017639m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:27199596..27208666 |
|  | Bd1-1MPK20-2 | Brdisv1Bd1-11014003m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_2:10186990..10193644 |
|  | Bd1-1MPK20-3 | Brdisv1Bd1-11005908m | Bradi1g41780 | + | 1266 | 421 | 8 | pseudomolecule\_1:26884656..26899215 |
|  | Bd1-1MPK20-4 | Brdisv1Bd1-11017837m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:28289286..28297659 |
|  | Bd1-1MPK20-5 | Brdisv1Bd1-11014155m | Bradi2g16337 | + | 1170 | 389 | 6 | pseudomolecule\_2:10857964..10862386 |
|  | Bd1-1MPK21-1 | Brdisv1Bd1-11014051m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:10366073..10373844 |
|  | Bd1-1MPK21-2 | Brdisv1Bd1-11017707m | Bradi2g45006 | - | 1449 | 482 | 7 | pseudomolecule\_2:27550877..27557506 |
| T+ | | | | | | | | |
| Bd21 | BdMPK3 | Bradi1g65810 | - | + | 1110 | 369 | 4 | 64739946 - 64742370 |
|  | BdMPK4 | Bradi3g32000 | - | + | 1128 | 375 | 6 | 34209148 - 34213422 |
|  | BdMPK6 | Bradi1g49100 | - | + | 1176 | 391 | 5 | 47836748 - 47843578 |
|  | BdMPK7-1 | Bradi1g34030 | - | + | 1242 | 413 | 2 | 29632402 - 29634667 |
|  | BdMPK7-2 | Bradi4g24914 | - | + | 5127 | 1708 | 11 | 29995835-30004649 |
|  | BdMPK11 | Bradi3g16560 | - | - | 1164 | 387 | 5 | 14742468 - 14745425 |
|  | BdMPK14 | Bradi3g03780 | - | - | 1110 | 369 | 2 | 2521821 - 2525826 |
|  | BdMPK16 | Bradi2g36470 | - | - | 1668 | 555 | 9 | 36786589 - 36792652 |
|  | BdMPK17 | Bradi1g34700 | - | + | 1746 | 581 | 10 | 30307750 - 30312635 |
|  | BdMPK20-1 | Bradi2g44350 | - | - | 1848 | 615 | 9 | 44852084 - 44858179 |
|  | BdMPK20-2 | Bradi2g15317 | - | + | 1794 | 597 | 9 | 13689255 - 13693771 |
|  | BdMPK20-3 | Bradi1g41780 | - | + | 1266 | 421 | 8 | 38419711 - 38433437 |
|  | BdMPK20-4 | Bradi2g45870 | - | + | 1743 | 580 | 9 | 46302880 - 46308387 |
|  | BdMPK20-5 | Bradi2g16337 | - | + | 1746 | 581 | 9 | 14412074 - 14417497 |
|  | BdMPK21-1 | Bradi2g15620 | - | - | 1788 | 595 | 10 | 13875717 - 13880863 |
|  | BdMPK21-2 | Bradi2g45006 | - | - | 1173 | 390 | 8 | 45423424..45432920 |
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|  | Bd21RefMPK11 | Brdisv20Bd21Ref1027806m | Bradi3g16560 | - | 1164 | 387 | 5 | Bd3:14739869..14744585 |
|  | Bd21RefMPK14 | Brdisv20Bd21Ref1025543m | Bradi3g03780 | - | 1110 | 369 | 2 | Bd3:2519851..2525848 |
|  | Bd21RefMPK16 | Brdisv20Bd21Ref1020074m | Bradi2g36470 | - | 1635 | 544 | 9 | Bd2:36799756..36808261 |
|  | Bd21RefMPK17 | Brdisv20Bd21Ref1006298m | Bradi1g34700 | + | 1746 | 581 | 10 | Bd1:30431238..30438643 |
|  | Bd21RefMPK20-1 | Brdisv20Bd21Ref1021539m | Bradi2g44350 | - | 1848 | 615 | 9 | Bd2:44871247..44880320 |
|  | Bd21RefMPK20-2 | Brdisv20Bd21Ref1016842m | Bradi2g15317 | + | 1827 | 608 | 9 | Bd2:13676842..13683413 |
|  | Bd21RefMPK20-3 | Brdisv20Bd21Ref1007272m | Bradi1g41780 | + | 1266 | 421 | 8 | Bd1:38631007..38650409 |
|  | Bd21RefMPK20-4 | Brdisv20Bd21Ref1021778m | Bradi2g45870 | + | 1743 | 580 | 9 | Bd2:46332590..46340975 |
|  | Bd21RefMPK20-5 | Brdisv20Bd21Ref1016994m | Bradi2g16337 | + | 1812 | 603 | 9 | Bd2:14400476..14407165 |
|  | Bd21RefMPK21-1 | Brdisv20Bd21Ref1016889m | Bradi2g15620 | - | 1788 | 595 | 10 | Bd2:13863076..13870851 |
|  | Bd21RefMPK21-2 | Brdisv20Bd21Ref1021630m | Bradi2g45006 | - | 1485 | 494 | 9 | Bd2:45423411..45432971 |
| Bd21-3 | Bd21-3MPK3 | Brdisv1Bd21-3\_r1010642m | Bradi1g65810 | + | 1122 | 373 | 4 | pseudomolecule\_1:58804643..58807730 |
|  | Bd21-3MPK4 | Brdisv1Bd21-3\_r1027304m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_3:27856142..27862230 |
|  | Bd21-3MPK6 | Brdisv1Bd21-3\_r1007822m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:42591074..42600069 |
|  | Bd21-3MPK11 | Brdisv1Bd21-3\_r1025222m | Bradi3g16560 | - | 1188 | 395 | 5 | pseudomolecule\_3:13192968..13197063 |
|  | Bd21-3MPK14 | Brdisv1Bd21-3\_r1023190m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_3:2475916..2481913 |
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|  | Bd21-3MPK17 | Brdisv1Bd21-3\_r1005812m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:28683542..28690903 |
|  | Bd21-3MPK20-1 | Brdisv1Bd21-3\_r1019381m | Bradi2g44350 | - | 1833 | 610 | 9 | pseudomolecule\_2:38529828..38538883 |
|  | Bd21-3MPK20-2 | Brdisv1Bd21-3\_r1015197m | Bradi2g15317 | + | 1857 | 618 | 9 | pseudomolecule\_2:13204203..13211812 |
|  | Bd21-3MPK20-3 | Brdisv1Bd21-3\_r1006610m | Bradi1g41780 | + | 1266 | 421 | 8 | pseudomolecule\_1:34390434..34409850 |
|  | Bd21-3MPK20-4 | Brdisv1Bd21-3\_r1019613m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:39931118..39939503 |
|  | Bd21-3MPK20-5 | Brdisv1Bd21-3\_r1015339m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:13927333..13934022 |
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|  | Bd21-3MPK21-2 | Brdisv1Bd21-3\_r1019467m | Bradi2g45006 | - | 1485 | 494 | 9 | pseudomolecule\_2:39005540..39015100 |
| Bd3-1 | Bd3-1MPK3 | Brdisv1Bd3-1\_r1008330m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:41762188..41765729 |
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|  | Bd3-1MPK6 | Brdisv1Bd3-1\_r1006154m | Bradi1g49100 | + | 747 | 248 | 4 | pseudomolecule\_1:30572679..30579705 |
|  | Bd3-1MPK11 | Brdisv1Bd3-1\_r1020329m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_3:10428351..10433066 |
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|  | Bd3-1MPK17 | Brdisv1Bd3-1\_r1004808m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:23115283..23122647 |
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|  | Bd3-1MPK20-3 | Brdisv1Bd3-1\_r1005298m | Bradi1g41780 | + | 1221 | 408 | 7 | pseudomolecule\_1:25764868..25777283 |
|  | Bd3-1MPK20-4 | Brdisv1Bd3-1\_r1015662m | Bradi2g45870 | + | 1788 | 595 | 9 | pseudomolecule\_2:28500781..28509235 |
|  | Bd3-1MPK20-5 | Brdisv1Bd3-1\_r1012412m | Bradi2g16337 | + | 1746 | 581 | 9 | pseudomolecule\_2:11428211..11434573 |
|  | Bd3-1MPK21-1 | Brdisv1Bd3-1\_r1012338m | Bradi2g15620 | - | 1497 | 498 | 10 | pseudomolecule\_2:11013953..11021741 |
|  | Bd3-1MPK21-2 | Brdisv1Bd3-1\_r1015518m | Bradi2g45006 | - | 1173 | 390 | 8 | pseudomolecule\_2:27676106..27685581 |
| Bd2-3 | Bd2-3MPK3 | Brdisv1Bd2-31009829m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:42505985..42509526 |
|  | Bd2-3MPK4 | Brdisv1Bd2-31032148m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_4:18793314..18799402 |
|  | Bd2-3MPK6 | Brdisv1Bd2-31007253m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:31294601..31303568 |
|  | Bd2-3MPK7-2 | Brdisv1Bd2-31024751m | Bradi4g24914 | + | 5127 | 1708 | 11 | pseudomolecule\_3:16257630..16278452 |
|  | Bd2-3MPK11 | Brdisv1Bd2-31030457m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:10772699..10777414 |
|  | Bd2-3MPK14 | Brdisv1Bd2-31028513m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:2283022..2289019 |
|  | Bd2-3MPK16 | Brdisv1Bd2-31016926m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:21674364..21682882 |
|  | Bd2-3MPK17 | Brdisv1Bd2-31005374m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:22253276..22260645 |
|  | Bd2-3MPK20-1 | Brdisv1Bd2-31018261m | Bradi2g44350 | + | 1848 | 615 | 9 | pseudomolecule\_2:27828816..27837889 |
|  | Bd2-3MPK20-2 | Brdisv1Bd2-31014393m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_2:10761850..10769452 |
|  | Bd2-3MPK20-3 | Brdisv1Bd2-31042613m | Bradi1g41780 | + | 624 | 208 | 3 | pseudomolecule\_8:21064923..21071851 |
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|  | Bd2-3MPK20-5 | Brdisv1Bd2-31014547m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:11355903..11362579 |
|  | Bd2-3MPK21-1 | Brdisv1Bd2-31014439m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:10935897..10943672 |
| Adi-10 | Adi-10MPK3 | Brdisv1Adi-101031639m | Bradi1g65810 | - | 1134 | 377 | 4 | pseudomolecule\_7:6347651..6350947 |
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|  | Adi-10MPK6 | Brdisv1Adi-101005339m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:22660972..22670064 |
|  | Adi-10MPK7-1 | Brdisv1Adi-101018783m | Bradi1g34030 | + | 1242 | 413 | 2 | pseudomolecule\_3:11981054..11985778 |
|  | Adi-10MPK11 | Brdisv1Adi-101023173m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:8098584..8103299 |
|  | Adi-10MPK14 | Brdisv1Adi-101031400m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_7:4530507..4536514 |
|  | Adi-10MPK16 | Brdisv1Adi-101033836m | Bradi2g36470 | + | 1635 | 544 | 9 | pseudomolecule\_7:23778113..23786650 |
|  | Adi-10MPK17 | Brdisv1Adi-101004044m | Bradi1g34700 | + | 1797 | 598 | 11 | pseudomolecule\_1:16456444..16463169 |
|  | Adi-10MPK20-1 | Brdisv1Adi-101013839m | Bradi2g44350 | + | 1848 | 615 | 9 | pseudomolecule\_2:20267432..20276505 |
|  | Adi-10MPK20-2 | Brdisv1Adi-101033960m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_7:24700748..24708335 |
|  | Adi-10MPK20-3 | Brdisv1Adi-101034957m | Bradi1g41780 | - | 651 | 216 | 3 | pseudomolecule\_7:32716951..32723959 |
|  | Adi-10MPK20-4 | Brdisv1Adi-101014002m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:20969757..20978008 |
|  | Adi-10MPK20-5 | Brdisv1Adi-101010961m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:8086940..8093619 |
|  | Adi-10MPK21-1 | Brdisv1Adi-101013900m | Bradi2g15620 | - | 1497 | 498 | 10 | pseudomolecule\_2:20476315..20483658 |
|  | Adi-10MPK21-2 | Brdisv1Adi-101031490m | Bradi2g45006 | + | 1173 | 390 | 8 | pseudomolecule\_7:5336808..5345501 |
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|  | Adi-2MPK7-1 | Brdisv1Adi-21046113m | Bradi1g34030 | - | 1119 | 372 | 1 | pseudomolecule\_8:41486428..41488660 |
|  | Adi-2MPK11 | Brdisv1Adi-21033371m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:12807962..12812674 |
|  | Adi-2MPK14 | Brdisv1Adi-21031107m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:2433058..2439049 |
|  | Adi-2MPK16 | Brdisv1Adi-21018516m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:26607755..26616260 |
|  | Adi-2MPK17 | Brdisv1Adi-21005644m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:25063033..25070394 |
|  | Adi-2MPK20-1 | Brdisv1Adi-21020002m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:34126635..34135708 |
|  | Adi-2MPK20-2 | Brdisv1Adi-21015730m | Bradi2g15317 | + | 1917 | 638 | 9 | pseudomolecule\_2:12517643..12524587 |
|  | Adi-2MPK20-3 | Brdisv1Adi-21045430m | Bradi1g41780 | + | 624 | 208 | 3 | pseudomolecule\_8:21247492..21254420 |
|  | Adi-2MPK20-4 | Brdisv1Adi-21020252m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:35459133..35467518 |
|  | Adi-2MPK20-5 | Brdisv1Adi-21015890m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:13272744..13279433 |
|  | Adi-2MPK21-1 | Brdisv1Adi-21015775m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:12687712..12695486 |
|  | Adi-2MPK21-2 | Brdisv1Adi-21020093m | Bradi2g45006 | - | 1485 | 494 | 9 | pseudomolecule\_2:34628753..34638313 |
| Adi-12 | Adi-12MPK3 | Brdisv1Adi-121041121m | Bradi1g65810 | - | 1110 | 369 | 4 | pseudomolecule\_7:7473978..7477519 |
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|  | Adi-12MPK6 | Brdisv1Adi-121007265m | Bradi1g49100 | + | 942 | 313 | 4 | pseudomolecule\_1:31890613..31896022 |
|  | Adi-12MPK7-1 | Brdisv1Adi-121024789m | Bradi1g34030 | + | 1242 | 413 | 2 | pseudomolecule\_3:16432718..16436141 |
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|  | Adi-12MPK16 | Brdisv1Adi-121016891m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:22050219..22058721 |
|  | Adi-12MPK17 | Brdisv1Adi-121005354m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:22322524..22329888 |
|  | Adi-12MPK20-1 | Brdisv1Adi-121018246m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:28404394..28413467 |
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|  | Adi-12MPK20-3 | Brdisv1Adi-121042759m | Bradi1g41780 | + | 624 | 208 | 3 | pseudomolecule\_7:23967507..23974435 |
|  | Adi-12MPK20-4 | Brdisv1Adi-121018451m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:29421173..29429558 |
|  | Adi-12MPK20-5 | Brdisv1Adi-121014469m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:11051681..11058357 |
|  | Adi-12MPK21-1 | Brdisv1Adi-121014362m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:10566875..10574649 |
|  | Adi-12MPK21-2 | Brdisv1Adi-121040934m | Bradi2g45006 | - | 1713 | 570 | 9 | pseudomolecule\_7:5862145..5871449 |
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|  | BdTR9kMPK11 | Brdisv1BdTR9K1028898m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:9817428..9822143 |
|  | BdTR9kMPK14 | Brdisv1BdTR9K1027057m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:1986369..1992334 |
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|  | Kah-1MPK7-1 | Brdisv1Kah-11044255m | Bradi1g34030 | + | 837 | 278 | 1 | pseudomolecule\_7:89302941..89307126 |
|  | Kah-1MPK11 | Brdisv1Kah-11020359m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_3:9123269..9127984 |
|  | Kah-1MPK14 | Brdisv1Kah-11018519m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_3:1932059..1938084 |
|  | Kah-1MPK16 | Brdisv1Kah-11014205m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:16919471..16927976 |
|  | Kah-1MPK20-1 | Brdisv1Kah-11035683m | Bradi2g44350 | + | 1146 | 381 | 6 | pseudomolecule\_7:10830364..10836109 |
|  | Kah-1MPK20-2 | Brdisv1Kah-11012143m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_2:8559863..8567357 |
|  | Kah-1MPK20-3 | Brdisv1Kah-11037354m | Bradi1g41780 | - | 651 | 216 | 3 | pseudomolecule\_7:22602944..22609910 |
|  | Kah-1MPK20-4 | Brdisv1Kah-11015432m | Bradi2g45870 | + | 1011 | 336 | 7 | pseudomolecule\_2:22188253..22192741 |
|  | Kah-1MPK20-5 | Brdisv1Kah-11012290m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:9173851..9180527 |
|  | Kah-1MPK21-1 | Brdisv1Kah-11012177m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:8693744..8701518 |
|  | Kah-1MPK21-2 | Brdisv1Kah-11015331m | Bradi2g45006 | - | 1485 | 494 | 9 | pseudomolecule\_2:21721936..21731496 |
| Kah-5 | Kah-5MPK3 | Brdisv1Kah-51010925m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:51259033..51262574 |
|  | Kah-5MPK4 | Brdisv1Kah-51035392m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_4:23239965..23246053 |
|  | Kah-5MPK6 | Brdisv1Kah-51007875m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:36629857..36638832 |
|  | Kah-5MPK7-1 | Brdisv1Kah-51046477m | Bradi1g34030 | + | 835 | 277 | 1 | pseudomolecule\_8:47747487..47749990 |
|  | Kah-5MPK11 | Brdisv1Kah-51033455m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:12398980..12403695 |
|  | Kah-5MPK14 | Brdisv1Kah-51031281m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:2371759..2377756 |
|  | Kah-5MPK16 | Brdisv1Kah-51018690m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:26410766..26419271 |
|  | Kah-5MPK17 | Brdisv1Kah-51005745m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:25178957..25186321 |
|  | Kah-5MPK20-1 | Brdisv1Kah-51020173m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:33905141..33914214 |
|  | Kah-5MPK20-2 | Brdisv1Kah-51015861m | Bradi2g15317 | + | 1917 | 638 | 9 | pseudomolecule\_2:12397623..12404634 |
|  | Kah-5MPK20-3 | Brdisv1Kah-51045497m | Bradi1g41780 | + | 624 | 208 | 3 | pseudomolecule\_8:19464794..19471722 |
|  | Kah-5MPK20-4 | Brdisv1Kah-51020414m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:35156808..35165193 |
|  | Kah-5MPK20-5 | Brdisv1Kah-51016005m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:13119110..13125799 |
|  | Kah-5MPK21-1 | Brdisv1Kah-51015904m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:12574512..12582286 |
|  | Kah-5MPK21-2 | Brdisv1Kah-51020257m | Bradi2g45006 | - | 1485 | 494 | 9 | pseudomolecule\_2:34341474..34351034 |
| BdTR5i | BdTR5iMPK3 | Brdisv1BdTR5I1009348m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:40020213..40023754 |
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|  | BdTR5iMPK6 | Brdisv1BdTR5I1006823m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:29048133..29057121 |
|  | BdTR5iMPK7-1 | Brdisv1BdTR5I1004945m | Bradi1g34030 | + | 1242 | 413 | 2 | pseudomolecule\_1:20227821..20231843 |
|  | BdTR5iMPK11 | Brdisv1BdTR5I1028828m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:9827604..9832319 |
|  | BdTR5iMPK14 | Brdisv1BdTR5I1026907m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:1941522..1947519 |
|  | BdTR5iMPK16 | Brdisv1BdTR5I1039980m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_8:14254984..14263489 |
|  | BdTR5iMPK17 | Brdisv1BdTR5I1005052m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:20698123..20705487 |
|  | BdTR5iMPK20-1 | Brdisv1BdTR5I1017346m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:25768348..25777421 |
|  | BdTR5iMPK20-2 | Brdisv1BdTR5I1040580m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_8:19629449..19636931 |
|  | BdTR5iMPK20-3 | Brdisv1BdTR5I1041219m | Bradi1g41780 | - | 651 | 216 | 3 | pseudomolecule\_8:25347260..25354225 |
|  | BdTR5iMPK20-4 | Brdisv1BdTR5I1017548m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:26692611..26700505 |
|  | BdTR5iMPK20-5 | Brdisv1BdTR5I1013896m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:10757700..10764389 |
|  | BdTR5iMPK21-1 | Brdisv1BdTR5I1013788m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:10278503..10286313 |
|  | BdTR5iMPK21-2 | Brdisv1BdTR5I1017428m | Bradi2g45006 | - | 1485 | 494 | 9 | pseudomolecule\_2:26103512..26113072 |
| BdTR10c | BdTR10cMPK3 | Brdisv1BdTR10C1009137m | Bradi1g65810 | + | 1566 | 521 | 10 | pseudomolecule\_1:20429680..20437072 |
|  | BdTR10cMPK4 | Brdisv1BdTR10C1023812m | Bradi3g32000 | + | 1128 | 375 | 7 | pseudomolecule\_3:17874038..17880140 |
|  | BdTR10cMPK6 | Brdisv1BdTR10C1006602m | Bradi1g49100 | + | 1143 | 380 | 5 | pseudomolecule\_1:28676682..28685550 |
|  | BdTR10cMPK7-1 | Brdisv1BdTR10C1031091m | Bradi1g34030 | + | 1242 | 413 | 2 | pseudomolecule\_4:15473929..15477468 |
|  | BdTR10cMPK11 | Brdisv1BdTR10C1022204m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_3:9981367..9986079 |
|  | BdTR10cMPK14 | Brdisv1BdTR10C1020364m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_3:2069122..2075037 |
|  | BdTR10cMPK16 | Brdisv1BdTR10C1015705m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:20271131..20279636 |
|  | BdTR10cMPK17 | Brdisv1BdTR10C1004902m | Bradi1g34700 | + | 1566 | 521 | 10 | pseudomolecule\_1:20429680..20437072 |
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|  | BdTR10cMPK20-2 | Brdisv1BdTR10C1013382m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_2:9915281..9922840 |
|  | BdTR10cMPK20-3 | Brdisv1BdTR10C1041496m | Bradi1g41780 | - | 651 | 216 | 3 | pseudomolecule\_8:37625905..37632596 |
|  | BdTR10cMPK20-4 | Brdisv1BdTR10C1017120m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:27077241..27085640 |
|  | BdTR10cMPK20-5 | Brdisv1BdTR10C1013523m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:10540978..10547667 |
|  | BdTR10cMPK21-1 | Brdisv1BdTR10C1017009m | Bradi2g15620 | - | 1497 | 498 | 10 | pseudomolecule\_2:26465042..26472231 |
|  | BdTR10cMPK21-2 | Brdisv1BdTR10C1038225m | Bradi2g45006 | + | 1773 | 590 | 8 | pseudomolecule\_8:5986618..5994410 |
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|  | BdTR11aMPK6 | Brdisv1BdTR11A1006993m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:29169130..29178118 |
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|  | BdTR11aMPK14 | Brdisv1BdTR11A1028042m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:2208183..2214145 |
|  | BdTR11aMPK16 | Brdisv1BdTR11A1016556m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:19887634..19896139 |
|  | BdTR11aMPK17 | Brdisv1BdTR11A1005247m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:21231237..21238601 |
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|  | BdTR11aMPK20-3 | Brdisv1BdTR11A1045462m | Bradi1g41780 | - | 651 | 216 | 3 | pseudomolecule\_7:38891114..38898079 |
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|  | BdTR11aMPK20-5 | Brdisv1BdTR11A1014255m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:10537076..10543765 |
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|  | BdTR11aMPK21-2 | Brdisv1BdTR11A1018053m | Bradi2g45006 | - | 1485 | 494 | 9 | pseudomolecule\_2:26187156..26196716 |
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|  | BdTR11iMPK4 | Brdisv1BdTR11I1034234m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_4:21083341..21089429 |
|  | BdTR11iMPK6 | Brdisv1BdTR11I1007652m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:34376675..34385657 |
|  | BdTR11iMPK7-1 | Brdisv1BdTR11I1045888m | Bradi1g34030 | - | 687 | 228 | 0 | pseudomolecule\_7:56411564..56412524 |
|  | BdTR11iMPK11 | Brdisv1BdTR11I1032437m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:11986893..11991605 |
|  | BdTR11iMPK14 | Brdisv1BdTR11I1030242m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:2372948..2378910 |
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|  | BdTR11iMPK17 | Brdisv1BdTR11I1005619m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:23865130..23872494 |
|  | BdTR11iMPK20-1 | Brdisv1BdTR11I1019460m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:30583279..30592352 |
|  | BdTR11iMPK20-2 | Brdisv1BdTR11I1015383m | Bradi2g15317 | + | 1917 | 638 | 10 | pseudomolecule\_2:11896614..11903625 |
|  | BdTR11iMPK20-3 | Brdisv1BdTR11I1044565m | Bradi1g41780 | + | 624 | 208 | 3 | pseudomolecule\_7:19623328..19630256 |
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|  | BdTR11iMPK20-5 | Brdisv1BdTR11I1015521m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:12486250..12492939 |
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|  | BdTR11gMPK7-1 | Brdisv1BdTR11G1046470m | Bradi1g34030 | - | 687 | 228 | 0 | pseudomolecule\_7:46987725..46988685 |
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|  | BdTR13cMPK21-2 | Brdisv1BdTR13C1017842m | Bradi2g45006 | - | 1485 | 494 | 9 | pseudomolecule\_2:27037935..27047495 |
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|  | Bis-1MPK4 | Brdisv1Bis-11011144m | Bradi3g32000 | - | 1194 | 397 | 7 | pseudomolecule\_1:49475655..49481459 |
|  | Bis-1MPK6 | Brdisv1Bis-11007534m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:33626153..33635148 |
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|  | Bis-1MPK11 | Brdisv1Bis-11031556m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:11528124..11532839 |
|  | Bis-1MPK14 | Brdisv1Bis-11029431m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:2327120..2333117 |
|  | Bis-1MPK16 | Brdisv1Bis-11017659m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:23180255..23188760 |
|  | Bis-1MPK17 | Brdisv1Bis-11005576m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:23692879..23700240 |
|  | Bis-1MPK20-1 | Brdisv1Bis-11018992m | Bradi2g44350 | + | 1848 | 615 | 9 | pseudomolecule\_2:29537073..29546146 |
|  | Bis-1MPK20-2 | Brdisv1Bis-11015089m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_2:11283418..11291025 |
|  | Bis-1MPK20-3 | Brdisv1Bis-11043552m | Bradi1g41780 | + | 624 | 208 | 3 | pseudomolecule\_8:17755798..17762726 |
|  | Bis-1MPK20-4 | Brdisv1Bis-11019216m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:30640661..30649046 |
|  | Bis-1MPK20-5 | Brdisv1Bis-11015242m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:11945890..11952579 |
|  | Bis-1MPK21-1 | Brdisv1Bis-11015134m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:11466562..11474337 |
|  | Bis-1MPK21-2 | Brdisv1Bis-11019081m | Bradi2g45006 | - | 1485 | 494 | 9 | pseudomolecule\_2:29937251..29946811 |
| Koz-1 | Koz-1MPK3 | Brdisv1Koz-11010948m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:52950330..52953871 |
|  | Koz-1MPK4 | Brdisv1Koz-11035762m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_4:24154892..24160980 |
|  | Koz-1MPK6 | Brdisv1Koz-11007897m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:37973394..37982367 |
|  | Koz-1MPK7-1 | Brdisv1Koz-11046637m | Bradi1g34030 | - | 834 | 277 | 1 | pseudomolecule\_8:42698224..42700056 |
|  | Koz-1MPK11 | Brdisv1Koz-11033685m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:12546413..12551128 |
|  | Koz-1MPK14 | Brdisv1Koz-11031538m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:2401403..2407400 |
|  | Koz-1MPK16 | Brdisv1Koz-11018826m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:28227746..28236251 |
|  | Koz-1MPK17 | Brdisv1Koz-11005826m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:26063470..26070834 |
|  | Koz-1MPK20-1 | Brdisv1Koz-11020254m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:35657820..35666893 |
|  | Koz-1MPK20-2 | Brdisv1Koz-11015944m | Bradi2g15317 | + | 1917 | 638 | 10 | pseudomolecule\_2:12923993..12931004 |
|  | Koz-1MPK20-3 | Brdisv1Koz-11045898m | Bradi1g41780 | + | 624 | 208 | 3 | pseudomolecule\_8:20439353..20446281 |
|  | Koz-1MPK20-4 | Brdisv1Koz-11025196m | Bradi2g45870 | - | 1743 | 580 | 9 | pseudomolecule\_3:7630781..7639166 |
|  | Koz-1MPK20-5 | Brdisv1Koz-11016096m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:13618829..13625505 |
|  | Koz-1MPK21-1 | Brdisv1Koz-11015994m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:13121935..13129709 |
|  | Koz-1MPK21-2 | Brdisv1Koz-11020344m | Bradi2g45006 | - | 1485 | 494 | 9 | pseudomolecule\_2:36151306..36160866 |
| Koz-3 | Koz-3MPK3 | Brdisv1Koz-31009389m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:42373442..42376983 |
|  | Koz-3MPK4 | Brdisv1Koz-31024105m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_3:17839127..17845519 |
|  | Koz-3MPK6 | Brdisv1Koz-31006774m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:30575421..30584366 |
|  | Koz-3MPK11 | Brdisv1Koz-31022574m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_3:10438688..10443403 |
|  | Koz-3MPK14 | Brdisv1Koz-31020739m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_3:2260783..2266734 |
|  | Koz-3MPK16 | Brdisv1Koz-31016040m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:20949198..20957695 |
|  | Koz-3MPK17 | Brdisv1Koz-31005240m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:22983454..22990818 |
|  | Koz-3MPK20-1 | Brdisv1Koz-31017201m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:26495719..26504792 |
|  | Koz-3MPK20-2 | Brdisv1Koz-31013656m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_2:10186441..10194043 |
|  | Koz-3MPK20-3 | Brdisv1Koz-31041190m | Bradi1g41780 | + | 624 | 208 | 3 | pseudomolecule\_7:22326509..22333403 |
|  | Koz-3MPK20-4 | Brdisv1Koz-31017399m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:27574299..27582684 |
|  | Koz-3MPK20-5 | Brdisv1Koz-31013797m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:10787414..10794090 |
|  | Koz-3MPK21-1 | Brdisv1Koz-31013700m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:10359702..10367477 |
|  | Koz-3MPK21-2 | Brdisv1Koz-31017266m | Bradi2g45006 | - | 1485 | 494 | 9 | pseudomolecule\_2:26818197..26827757 |
| BdTR3c | BdTR3cMPK3 | Brdisv1BdTR3C1011415m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:63278125..63281666 |
|  | BdTR3cMPK4 | Brdisv1BdTR3C1004133m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_1:20116984..20123072 |
|  | BdTR3cMPK6 | Brdisv1BdTR3C1008268m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:45771593..45780578 |
|  | BdTR3cMPK7-1 | Brdisv1BdTR3C1006021m | Bradi1g34030 | + | 1242 | 413 | 2 | pseudomolecule\_1:30032362..30036381 |
|  | BdTR3cMPK7-2 | Brdisv1BdTR3C1006046m | Bradi4g24914 | + | 5127 | 1708 | 11 | pseudomolecule\_1:30139896..30154926 |
|  | BdTR3cMPK11 | Brdisv1BdTR3C1026508m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_3:15215541..15220256 |
|  | BdTR3cMPK14 | Brdisv1BdTR3C1024843m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_3:2541825..2547822 |
|  | BdTR3cMPK16 | Brdisv1BdTR3C1019706m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:36445059..36453564 |
|  | BdTR3cMPK17 | Brdisv1BdTR3C1006170m | Bradi1g34700 | + | 1713 | 570 | 10 | pseudomolecule\_1:30918236..30924155 |
|  | BdTR3cMPK20-1 | Brdisv1BdTR3C1021125m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:44354962..44364035 |
|  | BdTR3cMPK20-2 | Brdisv1BdTR3C1016467m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_2:14674495..14682101 |
|  | BdTR3cMPK20-3 | Brdisv1BdTR3C1007009m | Bradi1g41780 | + | 1266 | 421 | 8 | pseudomolecule\_1:37466469..37485871 |
|  | BdTR3cMPK20-4 | Brdisv1BdTR3C1021364m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:45818839..45827224 |
|  | BdTR3cMPK20-5 | Brdisv1BdTR3C1016625m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:15473125..15479801 |
|  | BdTR3cMPK21-1 | Brdisv1BdTR3C1016518m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:14869008..14876782 |
|  | BdTR3cMPK21-2 | Brdisv1BdTR3C1021213m | Bradi2g45006 | - | 1485 | 494 | 9 | pseudomolecule\_2:44908565..44918125 |
| Gaz-8 | Gaz-8MPK3 | Brdisv1Gaz-81005117m | Bradi1g65810 | + | 873 | 290 | 4 | pseudomolecule\_1:20487801..20490206 |
|  | Gaz-8MPK4 | Brdisv1Gaz-81017044m | Bradi3g32000 | + | 843 | 280 | 6 | pseudomolecule\_4:9097423..9102653 |
|  | Gaz-8MPK6 | Brdisv1Gaz-81003701m | Bradi1g49100 | + | 915 | 304 | 4 | pseudomolecule\_1:14783219..14789260 |
|  | Gaz-8MPK7-1 | Brdisv1Gaz-81013145m | Bradi1g34030 | + | 807 | 268 | 2 | pseudomolecule\_3:8591549..8596197 |
|  | Gaz-8MPK11 | Brdisv1Gaz-81016151m | Bradi3g16560 | - | 1026 | 341 | 5 | pseudomolecule\_4:5227203..5231127 |
|  | Gaz-8MPK14 | Brdisv1Gaz-81024368m | Bradi3g03780 | + | 1110 | 369 | 2 | pseudomolecule\_8:21554290..21560301 |
|  | Gaz-8MPK16 | Brdisv1Gaz-81023301m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_8:14089925..14098450 |
|  | Gaz-8MPK17 | Brdisv1Gaz-81009612m | Bradi1g34700 | - | 1566 | 521 | 10 | pseudomolecule\_2:13515221..13521774 |
|  | Gaz-8MPK20-1 | Brdisv1Gaz-81009550m | Bradi2g44350 | + | 1848 | 615 | 9 | pseudomolecule\_2:13312651..13321724 |
|  | Gaz-8MPK20-2 | Brdisv1Gaz-81007554m | Bradi2g15317 | + | 1602 | 533 | 9 | pseudomolecule\_2:5247009..5254275 |
|  | Gaz-8MPK20-3 | Brdisv1Gaz-81026459m | Bradi1g41780 | + | 624 | 208 | 3 | pseudomolecule\_8:35942473..35948998 |
|  | Gaz-8MPK20-4 | Brdisv1Gaz-81009686m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:13771262..13778996 |
|  | Gaz-8MPK20-5 | Brdisv1Gaz-81007614m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:5560061..5566759 |
|  | Gaz-8MPK21-1 | Brdisv1Gaz-81009615m | Bradi2g15620 | - | 1497 | 498 | 10 | pseudomolecule\_2:13526465..13533511 |
|  | Gaz-8MPK21-2 | Brdisv1Gaz-81023218m | Bradi2g45006 | + | 1533 | 510 | 9 | pseudomolecule\_8:13597128..13606277 |
| BdTR1i | BdTR1iMPK3 | Brdisv1BdTR1i1011291m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:60417464..60421005 |
|  | BdTR1iMPK4 | Brdisv1BdTR1i1029278m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_3:29386777..29392865 |
|  | BdTR1iMPK6 | Brdisv1BdTR1i1008313m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:44282723..44291683 |
|  | BdTR1iMPK7-1 | Brdisv1BdTR1i1046789m | Bradi1g34030 | + | 843 | 280 | 1 | pseudomolecule\_8:19687147..19690774 |
|  | BdTR1iMPK11 | Brdisv1BdTR1i1027104m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_3:14433864..14438579 |
|  | BdTR1iMPK14 | Brdisv1BdTR1i1024796m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_3:2701799..2707796 |
|  | BdTR1iMPK16 | Brdisv1BdTR1i1019190m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:31417569..31426074 |
|  | BdTR1iMPK17 | Brdisv1BdTR1i1006203m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:30087702..30095066 |
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|  | BdTR1iMPK20-2 | Brdisv1BdTR1i1016104m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_2:13192384..13199986 |
|  | BdTR1iMPK20-3 | Brdisv1BdTR1i1006964m | Bradi1g41780 | - | 651 | 216 | 3 | pseudomolecule\_1:35790265..35797230 |
|  | BdTR1iMPK20-4 | Brdisv1BdTR1i1035579m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_4:8230487..8238872 |
|  | BdTR1iMPK20-5 | Brdisv1BdTR1i1016265m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:13918000..13924676 |
|  | BdTR1iMPK21-1 | Brdisv1BdTR1i1016152m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:13379301..13387076 |
|  | BdTR1iMPK21-2 | Brdisv1BdTR1i1020854m | Bradi2g45006 | - | 1485 | 494 | 9 | pseudomolecule\_2:41207041..41216601 |
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|  | BdTR2bMPK4 | Brdisv1BdTR2B1027249m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_3:21374558..21380646 |
|  | BdTR2bMPK6 | Brdisv1BdTR2B1007594m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:33843245..33852213 |
|  | BdTR2bMPK7-1 | Brdisv1BdTR2B1045837m | Bradi1g34030 | + | 687 | 228 | 0 | pseudomolecule\_7:57013438..57014608 |
|  | BdTR2bMPK11 | Brdisv1BdTR2B1025399m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_3:12021079..12025794 |
|  | BdTR2bMPK14 | Brdisv1BdTR2B1023291m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_3:2414424..2420421 |
|  | BdTR2bMPK16 | Brdisv1BdTR2B1043300m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_7:7251812..7260317 |
|  | BdTR2bMPK17 | Brdisv1BdTR2B1005613m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:23737484..23744848 |
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|  | BdTR2bMPK20-3 | Brdisv1BdTR2B1044368m | Bradi1g41780 | + | 624 | 208 | 3 | pseudomolecule\_7:20254079..20261007 |
|  | BdTR2bMPK20-4 | Brdisv1BdTR2B1019571m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:31231661..31240046 |
|  | BdTR2bMPK20-5 | Brdisv1BdTR2B1015380m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:11984745..11991421 |
|  | BdTR2bMPK21-1 | Brdisv1BdTR2B1015282m | Bradi2g15620 | - | 1788 | 595 | 10 | pseudomolecule\_2:11526861..11534636 |
|  | BdTR2bMPK21-2 | Brdisv1BdTR2B1019438m | Bradi2g45006 | - | 1485 | 494 | 9 | pseudomolecule\_2:30533628..30543188 |
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|  | BdTR2gMPK4 | Brdisv1BdTR2G1031654m | Bradi3g32000 | + | 1161 | 386 | 7 | pseudomolecule\_4:17818067..17823792 |
|  | BdTR2gMPK6 | Brdisv1BdTR2G1007189m | Bradi1g49100 | + | 747 | 248 | 3 | pseudomolecule\_1:29972962..29977454 |
|  | BdTR2gMPK7-1 | Brdisv1BdTR2G1044736m | Bradi1g34030 | - | 717 | 238 | 1 | pseudomolecule\_8:62938893..62940637 |
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|  | BdTR2gMPK20-2 | Brdisv1BdTR2G1014220m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_2:10256617..10264219 |
|  | BdTR2gMPK20-3 | Brdisv1BdTR2G1042101m | Bradi1g41780 | + | 624 | 208 | 3 | pseudomolecule\_8:20451444..20458372 |
|  | BdTR2gMPK20-4 | Brdisv1BdTR2G1018254m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:27388517..27396902 |
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|  | Bd18-1MPK11 | Brdisv1Bd18-11027073m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_3:15328939..15333654 |
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|  | Bd18-1MPK16 | Brdisv1Bd18-11019354m | Bradi2g36470 | - | 1635 | 544 | 8 | pseudomolecule\_2:35734516..35741346 |
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|  | Bd18-1MPK20-3 | Brdisv1Bd18-11006939m | Bradi1g41780 | + | 1266 | 421 | 8 | pseudomolecule\_1:36580873..36600275 |
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|  | Bd30-1MPK20-5 | Brdisv1Bd30-11008828m | Bradi2g16337 | - | 1812 | 603 | 9 | pseudomolecule\_1:42153927..42160604 |
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|  | ABR2MPK20-3 | Brdisv1ABR21029756m | Bradi1g41780 | + | 1266 | 421 | 8 | pseudomolecule\_3:36174122..36201001 |
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|  | ABR2MPK20-5 | Brdisv1ABR21015895m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:13298612..13305289 |
|  | ABR2MPK21-1 | Brdisv1ABR21015793m | Bradi2g15620 | - | 1785 | 594 | 10 | pseudomolecule\_2:12781658..12788855 |
|  | ABR2MPK21-2 | Brdisv1ABR21020133m | Bradi2g45006 | - | 1449 | 482 | 7 | pseudomolecule\_2:37090746..37097375 |
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|  | Uni2MPK4 | Brdisv1Uni21033435m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_4:20503076..20509177 |
|  | Uni2MPK6 | Brdisv1Uni21007433m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:34064480..34073462 |
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|  | Uni2MPK16 | Brdisv1Uni21017694m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:23970279..23978076 |
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|  | Luc1MPK20-3 | Brdisv1Luc11006705m | Bradi1g41780 | + | 1266 | 421 | 8 | pseudomolecule\_1:33099182..33118653 |
|  | Luc1MPK20-4 | Brdisv1Luc11020695m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:41246781..41255166 |
|  | Luc1MPK20-5 | Brdisv1Luc11016023m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:14423715..14430392 |
|  | Luc1MPK21-1 | Brdisv1Luc11015913m | Bradi2g15620 | - | 1785 | 594 | 10 | pseudomolecule\_2:13836429..13843626 |
|  | Luc1MPK21-2 | Brdisv1Luc11020537m | Bradi2g45006 | - | 1449 | 482 | 7 | pseudomolecule\_2:40343588..40350217 |
| Mur1 | Mur1MPK3 | Brdisv1Mur11009882m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:43078784..43082325 |
|  | Mur1MPK4 | Brdisv1Mur11032140m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_4:18921563..18927668 |
|  | Mur1MPK7-2 | Brdisv1Mur11023342m | Bradi4g24914 | - | 5127 | 1708 | 11 | pseudomolecule\_3:9181634..9196167 |
|  | Mur1MPK11 | Brdisv1Mur11030448m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:10587991..10592707 |
|  | Mur1MPK14 | Brdisv1Mur11028428m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:2042928..2048890 |
|  | Mur1MPK16 | Brdisv1Mur11016923m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:21760286..21768799 |
|  | Mur1MPK17 | Brdisv1Mur11005362m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:22018155..22025519 |
|  | Mur1MPK20-1 | Brdisv1Mur11018309m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:28187392..28196465 |
|  | Mur1MPK20-2 | Brdisv1Mur11014394m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_2:10584401..10591850 |
|  | Mur1MPK20-3 | Brdisv1Mur11006032m | Bradi1g41780 | + | 624 | 208 | 3 | pseudomolecule\_1:25541832..25548614 |
|  | Mur1MPK20-4 | Brdisv1Mur11018511m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:29119879..29128264 |
|  | Mur1MPK20-5 | Brdisv1Mur11014538m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:11227241..11233918 |
|  | Mur1MPK21-1 | Brdisv1Mur11014435m | Bradi2g15620 | - | 1785 | 594 | 10 | pseudomolecule\_2:10747037..10754234 |
|  | Mur1MPK21-2 | Brdisv1Mur11018391m | Bradi2g45006 | - | 1449 | 482 | 7 | pseudomolecule\_2:28535098..28541727 |
| ABR3 | ABR3MPK3 | Brdisv1ABR31010870m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:54467266..54470807 |
|  | ABR3MPK4 | Brdisv1ABR31028286m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_3:25789352..25795447 |
|  | ABR3MPK6 | Brdisv1ABR31008023m | Bradi1g49100 | + | 942 | 313 | 4 | pseudomolecule\_1:39815964..39821373 |
|  | ABR3MPK11 | Brdisv1ABR31026158m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_3:12627117..12631832 |
|  | ABR3MPK14 | Brdisv1ABR31024015m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_3:2191210..2197174 |
|  | ABR3MPK16 | Brdisv1ABR31018712m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:28935397..28943844 |
|  | ABR3MPK17 | Brdisv1ABR31005797m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:26409936..26417300 |
|  | ABR3MPK20-1 | Brdisv1ABR31020171m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:37131067..37140140 |
|  | ABR3MPK20-2 | Brdisv1ABR31015739m | Bradi2g15317 | + | 1827 | 608 | 9 | pseudomolecule\_2:12975705..12983308 |
|  | ABR3MPK20-3 | Brdisv1ABR31006618m | Bradi1g41780 | + | 1266 | 421 | 8 | pseudomolecule\_1:31470401..31489873 |
|  | ABR3MPK20-4 | Brdisv1ABR31020401m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:38421072..38429457 |
|  | ABR3MPK20-5 | Brdisv1ABR31015895m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:13766982..13773647 |
|  | ABR3MPK21-1 | Brdisv1ABR31015783m | Bradi2g15620 | - | 1785 | 594 | 10 | pseudomolecule\_2:13162496..13169693 |
|  | ABR3MPK21-2 | Brdisv1ABR31020259m | Bradi2g45006 | - | 1449 | 482 | 7 | pseudomolecule\_2:37666576..37673205 |
| ABR5 | ABR5MPK3 | Brdisv1ABR51010136m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:47562538..47566079 |
|  | ABR5MPK4 | Brdisv1ABR51033637m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_4:22709373..22715567 |
|  | ABR5MPK6 | Brdisv1ABR51007501m | Bradi1g49100 | + | 942 | 313 | 4 | pseudomolecule\_1:34687579..34692988 |
|  | ABR5MPK7-1 | Brdisv1ABR51046822m | Bradi1g34030 | - | 672 | 223 | 1 | pseudomolecule\_7:69079944..69081474 |
|  | ABR5MPK11 | Brdisv1ABR51031623m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:11284293..11289009 |
|  | ABR5MPK14 | Brdisv1ABR51029646m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_4:1967136..1973098 |
|  | ABR5MPK16 | Brdisv1ABR51017709m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:26481141..26489650 |
|  | ABR5MPK17 | Brdisv1ABR51014890m | Bradi1g34700 | - | 1746 | 581 | 10 | pseudomolecule\_2:12303710..12310793 |
|  | ABR5MPK20-1 | Brdisv1ABR51019274m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:34173956..34183029 |
|  | ABR5MPK20-2 | Brdisv1ABR51045248m | Bradi2g15317 | - | 1827 | 608 | 9 | pseudomolecule\_7:42721675..42729159 |
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|  | ABR5MPK20-5 | Brdisv1ABR51014991m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:12822180..12828845 |
|  | ABR5MPK21-1 | Brdisv1ABR51014894m | Bradi2g15620 | - | 1785 | 594 | 10 | pseudomolecule\_2:12317156..12324353 |
|  | ABR5MPK21-2 | Brdisv1ABR51019135m | Bradi2g45006 | - | 1449 | 482 | 7 | pseudomolecule\_2:33484734..33491363 |
| RON2 | RON2MPK3 | Brdisv1RON21010983m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:59692242..59695783 |
|  | RON2MPK4 | Brdisv1RON21028798m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_3:29464591..29470692 |
|  | RON2MPK6 | Brdisv1RON21008110m | Bradi1g49100 | + | 1176 | 391 | 5 | pseudomolecule\_1:43852898..43861865 |
|  | RON2MPK7-1 | Brdisv1RON21046379m | Bradi1g34030 | + | 810 | 269 | 2 | pseudomolecule\_7:22308481..22309945 |
|  | RON2MPK11 | Brdisv1RON21026673m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_3:14818333..14823049 |
|  | RON2MPK14 | Brdisv1RON21024409m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_3:2393884..2399846 |
|  | RON2MPK16 | Brdisv1RON21018668m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:31870031..31878536 |
|  | RON2MPK17 | Brdisv1RON21005994m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:29638316..29645685 |
|  | RON2MPK20-1 | Brdisv1RON21020075m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:40449295..40458368 |
|  | RON2MPK20-2 | Brdisv1RON21015763m | Bradi2g15317 | + | 1917 | 638 | 10 | pseudomolecule\_2:14236400..14243411 |
|  | RON2MPK20-3 | Brdisv1RON21006833m | Bradi1g41780 | + | 1266 | 421 | 8 | pseudomolecule\_1:35622343..35641745 |
|  | RON2MPK20-4 | Brdisv1RON21020271m | Bradi2g45870 | + | 1743 | 580 | 9 | pseudomolecule\_2:41674322..41682698 |
|  | RON2MPK20-5 | Brdisv1RON21015899m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:14946479..14953156 |
|  | RON2MPK21-1 | Brdisv1RON21015809m | Bradi2g15620 | - | 1785 | 594 | 10 | pseudomolecule\_2:14423728..14430925 |
|  | RON2MPK21-2 | Brdisv1RON21020154m | Bradi2g45006 | - | 1434 | 477 | 8 | pseudomolecule\_2:40913846..40922720 |
| Foz1 | Foz1MPK3 | Brdisv1Foz11010123m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:47207989..47211530 |
|  | Foz1MPK4 | Brdisv1Foz11026494m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_3:22410851..22416952 |
|  | Foz1MPK6 | Brdisv1Foz11007450m | Bradi1g49100 | + | 1080 | 359 | 5 | pseudomolecule\_1:34599837..34607723 |
|  | Foz1MPK7-2 | Brdisv1Foz11033114m | Bradi4g24914 | + | 5127 | 1708 | 11 | pseudomolecule\_4:10395134..10410161 |
|  | Foz1MPK11 | Brdisv1Foz11024517m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_3:11498688..11503403 |
|  | Foz1MPK14 | Brdisv1Foz11022432m | Bradi3g03780 | - | 1110 | 369 | 2 | pseudomolecule\_3:1999590..2005568 |
|  | Foz1MPK16 | Brdisv1Foz11017343m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:24795209..24803714 |
|  | Foz1MPK17 | Brdisv1Foz11005555m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:24106465..24113829 |
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|  | Foz1MPK20-5 | Brdisv1Foz11014797m | Bradi2g16337 | + | 1812 | 603 | 9 | pseudomolecule\_2:12072278..12078955 |
|  | Foz1MPK21-1 | Brdisv1Foz11018793m | Bradi2g15620 | - | 1785 | 594 | 10 | pseudomolecule\_2:31982812..31990009 |
|  | Foz1MPK21-2 | Brdisv1Foz11018797m | Bradi2g45006 | - | 1485 | 494 | 9 | pseudomolecule\_2:32006316..32015876 |
| Sig2 | Sig2MPK3 | Brdisv1Sig21010086m | Bradi1g65810 | + | 1110 | 369 | 4 | pseudomolecule\_1:46751346..46754887 |
|  | Sig2MPK4 | Brdisv1Sig21032872m | Bradi3g32000 | + | 1134 | 377 | 7 | pseudomolecule\_4:20797058..20803159 |
|  | Sig2MPK6 | Brdisv1Sig21007446m | Bradi1g49100 | + | 942 | 313 | 4 | pseudomolecule\_1:34607047..34612456 |
|  | Sig2MPK11 | Brdisv1Sig21030965m | Bradi3g16560 | - | 1164 | 387 | 5 | pseudomolecule\_4:10622236..10626951 |
|  | Sig2MPK14 | Brdisv1Sig21005335m | Bradi3g03780 | + | 1110 | 369 | 2 | pseudomolecule\_1:22942380..22948057 |
|  | Sig2MPK16 | Brdisv1Sig21017372m | Bradi2g36470 | - | 1635 | 544 | 9 | pseudomolecule\_2:24199266..24207771 |
|  | Sig2MPK17 | Brdisv1Sig21005462m | Bradi1g34700 | + | 1746 | 581 | 10 | pseudomolecule\_1:23575590..23582954 |
|  | Sig2MPK20-1 | Brdisv1Sig21018578m | Bradi2g44350 | - | 1848 | 615 | 9 | pseudomolecule\_2:30228069..30237142 |
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|  | Sig2MPK20-3 | Brdisv1Sig21006196m | Bradi1g41780 | + | 1266 | 421 | 8 | pseudomolecule\_1:27775362..27794764 |
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|  | Sig2MPK21-1 | Brdisv1Sig21018673m | Bradi2g15620 | - | 1785 | 594 | 10 | pseudomolecule\_2:30657662..30664859 |
|  | Sig2MPK21-2 | Brdisv1Sig21018669m | Bradi2g45006 | - | 1485 | 494 | 9 | pseudomolecule\_2:30647639..30657199 |