

Table S5: Tajima's Relative Rate Test for *Hd3a* and *RFT1* with *SbHd3a* (*Shorgum bicolor*) DNA sequences

| Accession | Outgroup | Identical sites | Unique sites | Unique Sites | | | χ^2 | dN/dS | |
|-----------|----------|-----------------|--------------|--------------|-------------|----------|----------|-------------|-------------|
| | | | | <i>Hd3a</i> | <i>RFT1</i> | Outgroup | | <i>Hd3a</i> | <i>RFT1</i> |
| 101508 | Sb | 437 | 11 | 26 | 17 | 43 | 1.8837 | 0.1484 | 0.1973 |
| 105908 | Sb | 437 | 10 | 22 | 14 | 51 | 1.7778 | 0.1570 | 0.1927 |
| A001 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A002 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| A006 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A008 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1926 |
| A011 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A014 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| A015 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A016 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A018 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| A019 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| A020 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1926 |
| A021 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A022 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A024 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A025 | Sb | 437 | 10 | 23 | 16 | 48 | 1.2564 | 0.1376 | 0.2065 |
| A027 | Sb | 437 | 10 | 23 | 16 | 48 | 1.2564 | 0.1376 | 0.2065 |
| A028 | Sb | 441 | 9 | 18 | 13 | 53 | 0.8065 | 0.1412 | 0.1927 |
| A030 | Sb | 441 | 9 | 18 | 13 | 53 | 0.8065 | 0.1412 | 0.1927 |
| A032 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1926 |
| A035 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A036 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A037 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A039 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1926 |
| A040 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| A041 | Sb | 437 | 10 | 24 | 15 | 48 | 2.0769 | 0.1437 | 0.1985 |
| A045 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| A047 | Sb | 437 | 10 | 23 | 16 | 48 | 1.2564 | 0.1376 | 0.2065 |
| A048 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A049 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A050 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| A053 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| A054 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| A055 | Sb | 437 | 10 | 23 | 16 | 48 | 1.2564 | 0.1376 | 0.2065 |
| A056 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A059 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A063 | Sb | 441 | 9 | 18 | 13 | 53 | 0.8065 | 0.1412 | 0.1926 |
| A064 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| A074 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| A082 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1926 |
| A086 | Sb | 437 | 11 | 26 | 17 | 43 | 1.8837 | 0.1484 | 0.1973 |
| A087 | Sb | 437 | 11 | 26 | 17 | 43 | 1.8837 | 0.1484 | 0.1973 |
| A091 | Sb | 442 | 10 | 17 | 13 | 52 | 0.5333 | 0.1473 | 0.1927 |
| A092 | Sb | 437 | 10 | 22 | 14 | 51 | 1.7778 | 0.1568 | 0.1927 |
| A096 | Sb | 439 | 10 | 21 | 13 | 51 | 1.8824 | 0.1612 | 0.1850 |
| A100 | Sb | 436 | 11 | 25 | 17 | 45 | 1.5238 | 0.1548 | 0.1985 |
| A103 | Sb | 438 | 10 | 22 | 13 | 51 | 2.3143 | 0.1674 | 0.1850 |
| A107 | Sb | 437 | 11 | 26 | 17 | 43 | 1.8837 | 0.1484 | 0.1973 |
| A112 | Sb | 441 | 10 | 18 | 13 | 52 | 0.8065 | 0.1537 | 0.1926 |
| A114 | Sb | 437 | 12 | 23 | 15 | 47 | 1.6842 | 0.1459 | 0.1985 |
| AS017 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1926 |
| AS062 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1926 |
| AS083 | Sb | 439 | 10 | 21 | 13 | 51 | 1.8824 | 0.1506 | 0.1724 |
| AS084 | Sb | 437 | 9 | 22 | 13 | 53 | 2.3143 | 0.1631 | 0.1957 |
| AS088 | Sb | 435 | 11 | 26 | 16 | 46 | 2.3810 | 0.1568 | 0.1985 |
| AS089 | Sb | 441 | 10 | 18 | 13 | 52 | 0.8065 | 0.1537 | 0.1926 |
| AS092 | Sb | 436 | 10 | 24 | 13 | 51 | 3.2703 | 0.1589 | 0.1850 |

| | | | | | | | | | |
|----------------|----|-----|----|----|----|----|--------|--------|--------|
| JRC012 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| JRC021 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| JRC022 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| JRC027 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| JRC033 | Sb | 437 | 10 | 24 | 15 | 48 | 2.0769 | 0.1341 | 0.1985 |
| JRC034 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| JRC042 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| JRC047 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| NonaBokra | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| O_brachyantha | Sb | 439 | 8 | 25 | 18 | 44 | 1.1395 | 0.1775 | 0.2370 |
| O_longistamina | Sb | 438 | 11 | 27 | 15 | 43 | 3.4286 | 0.1538 | 0.1948 |
| O_meridionalis | Sb | 435 | 9 | 22 | 19 | 49 | 0.2195 | 0.1484 | 0.1833 |
| O_punctata | Sb | 435 | 8 | 21 | 22 | 48 | 0.0233 | 0.1608 | 0.1489 |
| W0106 | Sb | 439 | 10 | 20 | 13 | 52 | 1.4848 | 0.1554 | 0.1927 |
| W0157 | Sb | 434 | 11 | 27 | 16 | 46 | 2.8140 | 0.1631 | 0.1985 |
| W1294 | Sb | 433 | 11 | 25 | 19 | 46 | 0.8182 | 0.1409 | 0.2448 |
| W1666 | Sb | 436 | 10 | 23 | 14 | 51 | 2.1892 | 0.1530 | 0.1927 |
| W1807 | Sb | 439 | 10 | 20 | 14 | 51 | 1.0588 | 0.1446 | 0.1926 |
| W1865 | Sb | 439 | 10 | 20 | 14 | 51 | 1.0588 | 0.1446 | 0.1926 |
| W1943 | Sb | 436 | 11 | 25 | 17 | 45 | 1.5238 | 0.1548 | 0.1985 |
| W1944 | Sb | 436 | 11 | 25 | 17 | 45 | 1.5238 | 0.1548 | 0.1985 |
| W2014 | Sb | 436 | 11 | 25 | 17 | 45 | 1.5238 | 0.1548 | 0.1985 |
| W2265 | Sb | 438 | 10 | 22 | 13 | 51 | 2.3143 | 0.1570 | 0.1850 |
| WRC001 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| WRC002 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC003 | Sb | 441 | 9 | 18 | 13 | 53 | 0.8065 | 0.1412 | 0.1927 |
| WRC004 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1926 |
| WRC005 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC006 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC007 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| WRC009 | Sb | 438 | 10 | 23 | 16 | 47 | 1.2564 | 0.1362 | 0.1985 |
| WRC010 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| WRC011 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC013 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| WRC014 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| WRC015 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC016 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| WRC017 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| WRC019 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC020 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| WRC021 | Sb | 437 | 10 | 24 | 15 | 48 | 2.0769 | 0.1341 | 0.1985 |
| WRC022 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| WRC023 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| WRC024 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| WRC025 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC026 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC027 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1926 |
| WRC028 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1926 |
| WRC029 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC030 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1926 |
| WRC031 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC033 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC034 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC035 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC036 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1926 |
| WRC037 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC038 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC039 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1926 |
| WRC040 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1926 |
| WRC042 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| WRC043 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |

| | | | | | | | | | |
|--------|----|-----|----|----|----|----|--------|--------|--------|
| WRC044 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| WRC046 | Sb | 437 | 10 | 23 | 16 | 48 | 1.2564 | 0.1376 | 0.2065 |
| WRC047 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| WRC048 | Sb | 437 | 10 | 23 | 16 | 48 | 1.2564 | 0.1376 | 0.2065 |
| WRC049 | Sb | 438 | 10 | 22 | 15 | 49 | 1.3243 | 0.1376 | 0.2065 |
| WRC050 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC051 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| WRC053 | Sb | 437 | 10 | 24 | 15 | 48 | 2.0769 | 0.1437 | 0.1985 |
| WRC055 | Sb | 437 | 10 | 24 | 15 | 48 | 2.0769 | 0.1437 | 0.1985 |
| WRC057 | Sb | 437 | 10 | 24 | 15 | 48 | 2.0769 | 0.1341 | 0.1985 |
| WRC058 | Sb | 441 | 9 | 18 | 13 | 53 | 0.8065 | 0.1412 | 0.1927 |
| WRC059 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| WRC060 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| WRC061 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC062 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| WRC064 | Sb | 440 | 9 | 19 | 13 | 53 | 1.1250 | 0.1376 | 0.1927 |
| WRC065 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| WRC066 | Sb | 441 | 10 | 19 | 12 | 52 | 1.5806 | 0.1497 | 0.1850 |
| WRC067 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| WRC068 | Sb | 438 | 10 | 23 | 15 | 48 | 1.6842 | 0.1376 | 0.1985 |
| WRC096 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| WRC097 | Sb | 437 | 10 | 23 | 16 | 48 | 1.2564 | 0.1376 | 0.2065 |
| WRC098 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| WRC099 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |
| WRC100 | Sb | 440 | 10 | 19 | 13 | 52 | 1.1250 | 0.1497 | 0.1927 |