```
Aque Aqu2.1.04587 001 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3
                         <sup>100</sup> Aque_Aqu2.1.44018_001 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3
                                       •Hvul_g21434_1 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                        -Morvir_scaffold82.g24.t1 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                           •Nemnom_g2708.t1 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                   Dgig XM 028543795.1 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                       -Adig_XM_015905594.1 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                        100
                                      -Spis_XP_022782447_1 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
    100
                                      •Nvec NVE8469 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                              100
                                        -Exapal XM 021053024.2 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                          →Exapal XM 028656868.1 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                             •Gracom_Gcom_scaffold18791_01 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                        •Plajan_Pjan_scaffold22999_01 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                         100
                                            •Ocar_g10283 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                        •Tetwil g17654.t2 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                                            -Nemnom g2361.t1 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                                           HoiH23 PIH23 010755-RA | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                              69
                                                                Tadh TriadT59503 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                                              <sup>100</sup> TrH2 TrispH2 009388-RA | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                           •Ctel gnl WGS AMQN CAPTEDRAFT mRNA219284 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                                       •Dmel FBtr0305271 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                           100
                                               •Dmel_FBtr0078033 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                             •Tcas_TC034217_004 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                  Spur_XM_030993163.1 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                                100 Spur XM 030993184.1 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                             •Skow XM 006818748.1 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2/EPS8L3 |
                    89
                                 •Bralan_BLAG18000287_1 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | NA |
                                                         Bralan BLAG18000517 4 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8L3 |
                     63
                                               •Drer_ENSDART00000139682 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | NA |
                              64
                         64
                                                    •Drer ENSDART00000167710 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8L3 |
                                      100
                                                        r+Hsap ENST00000369805 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8L3 |
                                                          •Mmus_ENSMUST00000037375 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8L3 |
                           63
                                        •Cint_ENSCINT00000023214 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8/EPS8L1/EPS8L2
                                        •Drer_ENSDART00000169805 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8 |
                                       r. Hsap ENST00000642939 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8 |
                                 100
                                    1001-Mmus ENSMUST00000058210 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8 |
                                                  -Hsap ENST00000201647 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8L1 |
                               83
                                               100 Mmus ENSMUST00000171445 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8L1 |
                                             Drer_ENSDART00000154020 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8L2 |
                                           -Hsap ENST00000650127 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8L2 |
                                         <sup>100</sup>1-Mmus ENSMUST00000026577 | PTB.HG1.0:EPS8/EPS8L1/EPS8L2/EPS8L3 | EPS8L2 |
                                   Plajan_Pjan_scaffold22574_01 | PTB.HG1.1:like:GULP1/LDLRAP1/NUMBL | NA |
                                 100 Plajan_Pjan_scaffold22575_01 | PTB.HG1.1:like:GULP1/LDLRAP1/NUMBL | NA
                    100
                                       Tetwil g9030.t2 | PTB.HG1.1:like:GULP1/LDLRAP1/NUMBL | NA |
                                       •Emue Em0018g1209a.t1 | PTB.HG1.1:like:GULP1/LDLRAP1/NUMBL | NA |
                                •Hvul g29015 1 | PTB.HG1.4:like:GULP1/LDLRAP1/NUMBL | NA |
                93
                                              •Ctel_gnl_WGS_AMQN_CAPTEDRAFT_mRNA87413 | PTB.HG1.4:like:GULP1/LDLRAP1/NUMBL | NA |
                                    •Dgig_XM_028542236.1 | PTB.HG1.5:GULP1 | GULP1 |
          98
                                  •Adig_XM_015917873.1 | PTB.HG1.5:GULP1 | GULP1 |
                              100 🗀
                                 -Spis_XP_022779340_1 | PTB.HG1.5:GULP1 | GULP1 |
                            98
                                  •Nvec v1g80887 | PTB.HG1.5:GULP1 | GULP1 |
                                   •Exapal_XM_021061538.2 | PTB.HG1.5:GULP1 | GULP1 |
                        99
                                  •Skow_XM_006814893.1 | PTB.HG1.5:GULP1 | GULP1 |
                                     •Spur XM 003731290.3 | PTB.HG1.5:GULP1 | GULP1 |
                                    •Bralan BLAG12000570 1 | PTB.HG1.5:GULP1 | GULP1 |
                                     -Cgig XM 011421643.3 | PTB.HG1.5:GULP1 | GULP1 |
                                      •Ctel gnl WGS AMQN CAPTEDRAFT mRNA95486 | PTB.HG1.5:GULP1 | GULP1 |
                                       -Drer_ENSDART00000080589 | PTB.HG1.5:GULP1 | NA |
                                        _Mmus_ENSMUST00000160854 | PTB.HG1.5:GULP1 | GULP1 |
                                        100 Hsap ENST00000359135 | PTB.HG1.5:GULP1 | GULP1 |
                                       •Tadh_TriadT19677 | PTB.HG1.6:NUMBL | NUMBL |
                                       •Drer_ENSDART00000179368 | PTB.HG1.6:NUMBL | NUMBL |
                           100
                                        <sub>[</sub>Hsap_ENST00000252891 | PTB.HG1.6:NUMBL | NUMBL |
                                     <sup>100</sup> Mmus ENSMUST00000079258 | PTB.HG1.6:NUMBL | NUMBL |
    100
                                        •Cgig XM 011453736.3 | PTB.HG1.7:LDLRAP1 | LDLRAP1 |
                                         •Skow_XM_002732137.2 | PTB.HG1.7:LDLRAP1 | LDLRAP1 |
                                       -Drer ENSDART00000021396 | PTB.HG1.7:LDLRAP1 | NA |
                              69
                                         -Drer ENSDART00000058093 | PTB.HG1.7:LDLRAP1 | LDLRAP1 |
                                          -Hsap_ENST00000374338 | PTB.HG1.7:LDLRAP1 | LDLRAP1 |
                         100
                                        1001-Mmus ENSMUST00000037828 | PTB.HG1.7:LDLRAP1 | LDLRAP1 |
                                         ·Spis_XP_022781415_1 | PTB.HG1.7:LDLRAP1 | LDLRAP1 |
                                          -Hvul_g33716_1 | PTB.HG1.7:LDLRAP1 | LDLRAP1 |
                                       Tetwil g22134.t1 | PTB.HG1.7:LDLRAP1 | LDLRAP1 |
                                       •Plajan_Pjan_scaffold21704_01 | PTB.HG1.7:LDLRAP1 | LDLRAP1 |
                              94
                                          -Scil scict020499.1 | PTB.HG1.7:LDLRAP1 | LDLRAP1 |
                                          Gracom_Gcom_scaffold5704_01 | PTB.HG1.7:LDLRAP1 | LDLRAP1
                                        Gracom_Gcom_scaffold5706_01 | PTB.HG1.7:LDLRAP1 | LDLRAP1 |
                             •Ague Agu2.1.42583 001 | PTB.HG1.2:like:TNS1/TNS2/TNS3/TNS4 | NA |
                           •Tetwil_g23199.t1 | PTB.HG1.2:like:TNS1/TNS2/TNS3/TNS4 | NA |
                                    •Emue Em0022g286a.t1 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                               -Scil_scict013551.1 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                                 -Gracom_Gcom_scaffold16877_01 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
               98
                                           -TrH2 TrispH2 001234-RA | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                          Dgig XM 028553155.1 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                    78
                                               •Nemnom g18504.t1 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                     99
                                                   •Morvir_scaffold72.g38.t3 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                              91
                                                         •Aque_Aqu2.1.39348_001 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                         65
                                                            •Tetwil_g5078.t1 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                                •Exapal_XM_021048883.2 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                          100
                                                    •Nvec v1g91231 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                     100
                                               •Spis_XP_022798832_1 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                               -Adig_XM_015895178.1 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                       •Dmel_FBtr0082119 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                                         •Plajan_Pjan_C539758_01 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                          ·Cint_ENSCINT00000024265 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                  59
                                          •Ctel_gnl_WGS_AMQN_CAPTEDRAFT_mRNA177178 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                          •Skow XM 002737693.2 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                93
                                             <sub>!</sub>Spur_XM_030973871.1 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                    87
                                          <sup>100</sup> Spur XM 030974664.1 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                           •Cgig_XM_034444689.1 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                  40
                                               Bralan_BLAG17000398_1 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1/TNS2/TNS3/TNS4 |
                                                   Drer ENSDART00000098906 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS2 |
                                             1001-Drer ENSDART00000140557 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS2 |
                                                Hsap ENST00000314276 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS2 |
                                             <sup>100</sup>1•Mmus_ENSMUST00000046144 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS2 |
                                                  -Drer_ENSDART00000015159 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1
                                                   -Drer ENSDART00000115118 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1 |
                                                 Hsap ENST00000646520 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1 |
                                              <sup>100</sup> Mmus ENSMUST00000169786 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS1 |
                                                        -Hsap ENST00000254051 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS4 |
                                                     100 - Mmus_ENSMUST00000017751 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS4 |
                                                  Drer ENSDART00000136567 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS3 |
                                                   Mmus ENSMUST00000239111 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS3 |
                                                 100 Hsap ENST00000311160 | PTB.HG1.3:TNS1/TNS2/TNS3/TNS4 | TNS3 |
0.416667
```

0.41666