```
TrH2 TrispH2 005314-RA | OG0 |
             <sup>1001</sup>•Tadh_TriadT64132 | OG0 |
                  •HoiH11_mRNA1839 | OG0 |
          100
                      <sub>!</sub>+HoiH23_PIH23_004362-RA | OG0 |
                   <sup>1001</sup>•HoiH06 mRNA6650 | OG0 |
                      Hhon g06890.t1 | OG0 |
                   <sup>1001</sup>HoiH04_mRNA11875 | OG0 |
  36
              •Clacor_Ccor_scaffold14560_01 | OG0 |
               •Lcom_lcpid58592 | OG0 |
                 •Leuniv_Lniv_scaffold21090_01 | OG0 |
                     Gracom Gcom C555388 01 | OG0 |
                    Scil_scict005158.1 | OG0 |
                 Opea_EP00118_Oscarella_pearsei_P027167 | OG0 |
                  •Plajan_Pjan_C563642_01 | OG0 |
                     •Plajan Pjan C568600 01 | OG0 |
       93
                    <sub>r</sub>Opea_EP00118_Oscarella_pearsei_P003238 | OG0 |
                  100 Ocar g10712 | OG0 |
              Xestes_maker-XT_scaffold52235-augustus-gene-0.22-mRNA-1 | OG1 |
31
      73
                   •Tetwil_g16716.t2 | OG1 |
               •Aque_Aqu2.1.15584_001 | OG1 |
                •Halamb c50498 g1 i1m.28473 | OG1 |
        100
    69
                   Aque Aqu2.1.14232 001 | OG1 |
                <sup>1001</sup>•Aque _Aqu2.1.15585_001 | OG1 |
      36
                Stycar_maker-SC_scaffold7407-snap-gene-0.5-mRNA-1 | OG1 |
                 •Tetwil g3786.t2 | OG1 |
                    •Spolac c103604 g2 i1 m.35122c103604-g1 | OG1 |
                     •Emue_Em0011g1162a.t1 | OG1 |
                     •Emue_Em0011g1164a.t1 | OG1 |
           85
                      •Stycar_maker-SC_scaffold7103-snap-gene-0.10-mRNA-1 | OG1 |
                           •Emue_Em0011g1163a.t1 | OG1 |
                        <sup>100</sup><sup>1</sup>-Spolac_c103604_g1_i2_m.35120c103604-g1 | OG1 |
                      •Lcom_lcpid247854 | OG1 |
       52
                  •Plespi_Pspi_scaffold13890_01 | OG1 |
               -Mylflu_EP00047_Mylnosiga_fluctuans P002162 | OG1 |
                   Salinf_EP00049_Salpingoeca_infusionum_P001723 | OG1 |
    79
               <sup>100</sup> Salinf_EP00049_Salpingoeca_infusionum_P001725 | OG1 |
                     Microa EP00043 Microstomoeca roanoka P016013 | OG1 |
          99
      54
                    | Sros_EGD76363 | OG1
                    Mbre EDQ90386 | OG1 |
                      Chofle EP00730 Choanoeca flexa P003382 | OG1 |
        36
                      Choper_EP00045_Choanoeca_perplexa_P005766 | OG1 |
                   Saldol_EP00054_Salpingoeca_dolichothecata_P033119 | OG1 |
                      Codhol_EP00042_Codosiga_hollandica_P020964 | OG1 |
                    Salmac EP00052 Salpingoeca macrocollata P009046 | OG1 |
          46
                        Salurc EP00051 Salpingoeca urceolata P027340 | OG1 |
            62
                        Salkve_EP00050_Salpingoeca_kvevrii_P006387 | OG1 |
              66
                                              -Codhol_EP00042_Codosiga_hollandica_P005995 | OG1 |
                             •Didcos_EP00039_Didymoeca_costata_P026207 | OG1 |
                               Stedip EP00041 Stephanoeca diplocostata P034980 | OG1 |
                   100
                                Acaspe EP00035 Acanthoeca spectabilis P020986 | OG1 |
                                •Helnan_EP00037_Helgoeca_nana_P037398 | OG1 |
                     93
                               Diagra_EP00040_Diaphanoeca_grandis_P035059 | OG1 -
                                       Diagra_EP00040_Diaphanoeca_grandis_P033281 | OG1 |
                         100
                                  Diagra EP00040_Diaphanoeca_grandis_P033282 | OG1 |
          Ctel gnl WGS AMQN CAPTEDRAFT mRNA20744 | OG4 |
                 •Morvir scaffold214.g5.t2 | OG2 |
                 Sanmal Sma 011754-T1 | OG2 |
                    Aaur scaffold468.g4.t1 | OG2 |
          100
                      •Nemnom g12775.t1 | OG2 |
                <sup>100</sup><sup>L</sup>•Rhoesc_Res_016768-T1 | OG2 |
                  Dgig_XM_028545261.1 | OG2 |
                   •Xesp_001231-T1 | OG2 |
        79
                   Chem_TCONS_00009993 | OG2 |
                   Hvul g1594 1 | OG2 |
    77
                       •Hvul g1603 1 | OG2 |
31
            •Lcom_lcpid202120 | OG2 |
               Exapal_XM_028658406.1 | OG2 |
                 •Nvec_v1g150172 | OG2 |
      39
              <sup>100</sup> Nvec v1g180278 | OG2 |
                  •Gfas gfas1.m1.16758.m1 | OG2 |
        97
                   -Amil Amillepora00032-RA | OG2 |
                <sup>100</sup> Adig_XM_015900234.1 | OG2 |
          100
                  •Fspp_ffun1.m4.19713.m1 | OG2 |
                   •Gasp gasp1.m3.27374.m1 | OG2 |
                     -Spis XP 022786616 1 | OG2 |
  43
                   <sup>100</sup><sup>1</sup>-Pocdam_XM_027201532.1 | OG2 |
                •Acagra_model.g11754.t1_model.g11756.t1 | OG3 |
        89
                 -Cgig_XM_011437647.3 | OG3 |
                Hsap ENST00000196371 | OG3 |
      42
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                    •Hsap ENST00000327582 | OG3 |
                       Saldol_EP00054_Salpingoeca_dolichothecata_P032170 | OG3 |
                          Acaspe_EP00035_Acanthoeca_spectabilis_P009355 | OG3 |
                            ·Saldol_EP00054_Salpingoeca_dolichothecata_P026712 | OG3 |
                              Ctel anl WGS AMQN CAPTEDRAFT_mRNA117924 | OG3 |
            63
                               Helnan EP00037 Helgoeca nana P010363 | OG3 |
                                            Codhol EP00042 Codosiga hollandica P010096 | OG3 |
               61
                             Codhol_EP00042_Codosiga_hollandica_P024808 | OG3 |
    35
                                   •Microa_EP00043_Microstomoeca_roanoka_P000365 | OG3 |
                      100
                                 •Choper EP00045 Choanoeca_perplexa_P007714 | OG3 |
                •Dpul mRNA10473 | OG3 |
        86
                   •Tcas TC011712 001 | OG3 |
                    -Cscu XM 023360719.1 | OG3 |
            88
                        •Cscu_XM_023372515.1 | OG3 |
                    Bralan BLAG13000313 1 | OG3 |
      63
                       •Lcom | lcpid214883 | OG3 |
                     Skow NM 001184843.1 | OG3 |
            69
                      Spur_XM_030995599.1 | OG3 |
                    <sup>1001</sup>Spur_XM_030996436.1 | OG3 |
        59
                         Coemet Cmet scaffold13122 01 | OG3 |
                         ·Vmul SimC400686 | OG3 |
                                     -Pbac_sb2654351 | OG3 |
                         Lampan_Lpan_267_01 | OG3 |
                    68
               100
                      <sup>100</sup>Lampan_Lpan_268_01 | OG3 |
                         -•Horcal Hcv1.av93.c6.g368.i1 | OG3 |
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                                  --Pbac_sb2643369 | OG3 |
                           Bolinf Binf sb1216048 | OG3 |
                        <sup>100</sup> Mertsp_Mesp_sb572995 | OG3 |
                    50
                               Drygla Dgla sb282878 | OG3 |
                                     Eupdun Edun sb10690939 | OG3 |
                      70
                                 Beraby Baby sb340423 | OG3 |
                               <sup>1</sup> Beraby_Baby_sb340424 | OG3 |
                        66
                               <sub>f</sub>Mlei_ML0841.g1.i1 | OG3 |
                            <sup>100</sup> Vmul sbMO381164 | OG3 |
                              Mertsp Mesp sb577413 | OG3 |
                                Bolinf_Binf_sb1241348 | OG3 |
                                  Bolinf_Binf_sb1241349 | OG3 |
                                    Bolinf Binf sb1241347 | OG3 |
                                   90<sup>1</sup>Mertsp Mesp_sb577412 | OG3 |
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