1. **For *CDH23***

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| **Model** | **Parameter Estimated** | **lnL** | **2⊿lnL****(*P* value)** | **Positively Selected Sites (BEB Analysis)** |
| **One ratio** | ω = 0.0546 | -35796.7768 | 267.7826**(*P* < 0.001)** |  |
| **Free ratio** | ωbranch *b* = 0.1432ωbranch *d* = 0.0290ωbranch *g* = 0.1167 | -35662.8855 |  |
| **Branch Model** |  |  |  |  |
| branch *b* and branch *d* | ωbranch (*b+d*) = 0.1107 ω0 = 0.0500 | -35771.7882 | 418.8219**(*P* < 0.001)** |  |
| branch *b* andbranch *d*ωbranch (*b+d*) = 1 | ω0 = 0.0483 | -35981.1991 |  |
| branch *g*  | ωbranch *g*= 0.1145 ω0 = 0.0516 | -35779.9788 | 246.9333**(*P* < 0.001)** |  |
| branch *g*ωbranch *g*= 1 | ω0 = 0.0505 | -35903.4455 |  |
| branch *b*, *d* and *g* | ωecholocators = 0.1126 ω0 = 0.0465 | -35750.5605 | 660.6044**(*P* < 0.001)** |  |
| branch *b*, *d* and *g*ωecholocators= 1 | ω0 = 0.0437 | -36080.8627 |  |
| **Branch-site Model** |  |  |  |  |
| branch *b* | site class 0 1 2a 2bproportion 0.92097 0.05178 0.02580 0.00145background ω 0.03156 1.00000 0.03156 1.00000foreground ω 0.03156 1.00000 3.85446 3.85446 | -35474.2382 | Test 1 | 71.4450**(*P* < 0.001)** | **213 A 0.984\***, **692 F 0.984\***, **1165 N 0.989\***, **1171 S 0.958\***, **1256 D 0.989\***, **1356 I 0.990\*\***, 1687 T 0.925, **2492 L 0.970\*** |
| Test 2 | 10.4158**(*P* < 0.010)** |
| branch *d* | site class 0 1 2a 2bproportion 0.94313 0.05687 0.00000 0.00000background ω 0.03347 1.00000 0.03347 1.00000foreground ω 0.03347 1.00000 1.00000 1.00000 | -35509.9607 | Test 1 | 0(*P* ≥ 0.995) |  |
| Test 2 | 0(*P* ≥ 0.995) |
| branch *b* and branch *d* | site class 0 1 2a 2bproportion 0.93530 0.05632 0.00790 0.00048background ω 0.03338 1.00000 0.03338 1.00000foreground ω 0.03338 1.00000 1.00000 1.00000 | -35509.8379 | Test 1 | 0.2455(*P* <0.900) |  |
| Test 2 | 0*P* ≥ 0.995 |
| branch *g*  | site class 0 1 2a 2bproportion 0.92922 0.05575 0.01418 0.00085background ω 0.03168 1.00000 0.03168 1.00000foreground ω 0.03168 1.00000 5.94936 5.94936 | -35482.5897 | Test 1 | 54.7421**(*P* < 0.001)** | **580 S 0.974\***,**840 H 0.973\***,**1011 H 0.973\***, **1014 T 0.978\***, **2133 T 0.952\***, **2224 T 0.974\*** |
| Test 2 | 10.7224**(*P* < 0.010)** |
| branch *b*, *d* and *g* | site class 0 1 2a 2bproportion 0.92519 0.05501 0.01869 0.00111background ω 0.03126 1.00000 0.03126 1.00000foreground ω 0.03126 1.00000 3.17974 3.17974 | -35477.3803 | Test 1 | 65.1609**(*P* < 0.001)** | **580 S 0.962\***, **840 H 0.961\***, **1011 H 0.963\***, **1014 T 0.970\***, **1026 D 0.953\***, **1233 E 0.960\***, **1359 I 0.965\***, 2042 T 0.939, 2133 T 0.936, **2224 T 0.964\*** |
| Test 2 | 8.6179**(*P* < 0.010)** |

1. **For *PCDH15***

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| **Model** | **Parameter Estimated** | **lnL** | **2⊿lnL****(*P* value)** | **Positively Selected Sites (BEB Analysis)** |
| **One ratio** | ω = 0.1231 | -15452.8512 | 206.3534**(*P* < 0.001)** |  |
| **Free ratio** | ωbranch *b* = 0.3530ωbranch *d* = 0.2154ωbranch *g* = 0.4474 | -15349.6745 |  |
| **Branch Model** |  |  |  |  |
| branch *b* and branch *d* | ωbranch (*b+d*) = 0.3211 ω0 = 0.0998 | -15415.0079 | 83.0381**(*P* < 0.001)** |  |
| branch *b* andbranch *d*ωbranch (*b+d*) = 1 | ω0 = 0.0983 | -15456.5269 |  |
| branch *g*  | ωbranch *g*= 0.4469 ω0 = 0.1109 | -15426.9934 | 16.6620**(*P* < 0.001)** |  |
| branch *g*ωbranch *g*= 1 | ω0 = 0.1105 | -15435.3244 |  |
| branch *b*, *d* and *g* | ωecholocators = 0.3561 ω0 = 0.0851 | -15380.3309 | 96.3532**(*P* < 0.001)** |  |
| branch *b*, *d* and *g*ωecholocators= 1 | ω0 = 0.0834 | -15428.5075 |  |
| **Branch-site Model** |  |  |  |  |
| branch *b* | site class 0 1 2a 2bproportion 0.79672 0.11161 0.08040 0.01126background ω 0.02983 1.00000 0.02983 1.00000foreground ω 0.02983 1.00000 2.00038 2.00038 | -15181.4255 | Test 1 | 55.4773**(*P* < 0.001)** | 430 R 0.934, **454 H 0.965\***, **816 T 0.970\*** |
| Test 2 | 2.6591(*P* < 0.500) |
| branch *d* | site class 0 1 2a 2bproportion 0.86720 0.12926 0.00308 0.00046background ω 0.03721 1.00000 0.03721 1.00000foreground ω 0.03721 1.00000 24.77802 24.77802 | -15204.2949 | Test 1 | 9.7385**(*P* < 0.010)** | 573 T 0.921 |
| Test 2 | **6.4259****(*P* < 0.050)** |
| branch *b* andbranch *d* | site class 0 1 2a 2bproportion 0.86830 0.13170 0.00000 0.00000background ω 0.03752 1.00000 0.03752 1.00000foreground ω 0.03752 1.00000 1.00000 1.00000 | -15209.1642 | Test 1 | 0(*P* ≥ 0.995) |  |
| Test 2 | 0(*P* ≥ 0.995) |
| branch *g*  | site class 0 1 2a 2bproportion 0.81368 0.11630 0.06127 0.00876background ω 0.03403 1.00000 0.03403 1.00000foreground ω 0.03403 1.00000 2.72477 2.72477 | -15193.4511 | Test 1 | 31.4262**(*P* < 0.001)** | **1584D0 .994\*\*** |
| Test 2 | 2.9014(*P* < 0.100) |
| branch *b*, *d* and *g* | site class 0 1 2a 2bproportion 0.82047 0.11653 0.05516 0.00783background ω 0.03394 1.00000 0.03394 1.00000foreground ω 0.03394 1.00000 2.84765 2.84765 | -15193.1313 | Test 1 | 32.0658**(*P* < 0.001)** | **1584D0.992\*\***, 1936 L 0.947 |
| Test 2 | 3.5302(*P* < 0.100) |

1. **For *OTOF***

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| **Model** | **Parameter Estimated** | **lnL** | **2⊿lnL****(P value)** | **Positively****Selected Sites (BEB Analysis)** |
| **One ratio** | ω = 0.0374 | -19845.3890 | 118.3583**(P < 0.001)** |  |
| **Free ratio** | ωbranch *b* = 0.0693ωbranch *d* = 0.0356ωbranch *g* = 0.0895 | -19786.2098 |  |
| **Branch Model** |  |  |  |  |
| branch *b*andbranch *d* | ωbranch (*b+d*) = 0.0572 ω0 = 0.0364 | -19843.5402 | 158.6241**(P < 0.001)** |  |
| branch *b*andbranch *d*ωbranch (*b+d*) = 1 | ω0 = 0.0350 | -19922.8522 |  |
| branch *g* | ωbranch *g*= 0.0886 ω0 = 0.0352 | -19835.1619 | 126.9486**(P < 0.001)** |  |
| branch *g*ωbranch *g*= 1 | ω0 = 0.0341 | -19898.6363 |  |
| branch *b*, *d* and *g* | ωecholocators = 0.0732 ω0 = 0.0340 | -19833.7703 | 278.1766**(P < 0.001)** |  |
| branch *b*, *d* and *g*ωecholocators= 1 | ω0 = 0.0315 | -19972.8586 |  |
| **Branch-site Model** |  |  |  |  |
| branch *b* | site class 0 1 2a 2b proportion 0.95114 0.03918 0.00930 0.00038 background ω 0.02313 1.00000 0.02313 1.00000 foreground ω 0.02313 1.00000 3.10544 3.10544 | -19683.4542 | Test 1 | 5.9493(P < 0.100) |  |
| Test 2 | 0.7696(P < 0.500) |
| branch *d* | site class 0 1 2a 2bproportion 0.95968 0.04032 0.00000 0.00000background ω 0.02352 1.00000 0.02352 1.00000foreground ω 0.02352 1.00000 1.00000 1.00000 | -19686.4288 | Test 1 | 0(P ≥ 0.995) |  |
| Test 2 | 0(P ≥ 0.995) |
| branch *b*andbranch *d* | site class 0 1 2a 2bproportion 0.95550 0.03924 0.00505 0.00021background ω 0.02331 1.00000 0.02331 1.00000foreground ω 0.02331 1.00000 2.34946 2.34946 | -19685.2083 | Test 1 | 2.4411(P < 0.500) |  |
| Test 2 | 0.4690(P < 0.500) |
| branch *g* | site class 0 1 2a 2bproportion 0.92038 0.03758 0.04039 0.00165background ω 0.02221 1.00000 0.02221 1.00000foreground ω 0.02221 1.00000 1.00000 1.00000 | -19678.7638 | Test 1 | **15.3299****(P < 0.001)** | **944 L 0.950\*** |
| Test 2 | 0(P ≥ 0.995) |
| branch *b*, *d* and *g* | site class 0 1 2a 2bproportion 0.93940 0.03477 0.02491 0.00092background ω 0.02225 1.00000 0.02225 1.00000foreground ω 0.02225 1.00000 1.36768 1.36768 | -19671.6820 | Test 1 | **29.4937****(P < 0.001)** | 191 P 0.925, 213 G 0.928,**396 D 0.989\***, 944 L 0.931, 1238 R 0.916 |
| Test 2 | 0.4685(P < 0.500) |