**Table 1. Comparison of the patient subgroups for demographic characteristics and laboratory results**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | **EW (n = 42)** | | | |  | **MW (n = 41)** | | | |  | **Asthma (n = 19)** | | | | p | |
|  | Mean ± sd / n-% | | | Med |  | Mean ± sd / n-% | | | Med |  | Mean ± sd / n-% | | | Med |
| Age (months) | | 37.8 | ± | 16.6 | 41.0 |  | 37.4 | ± | 15.6 | 39.0 |  | 84.4 | ± | 26.9 | 72.0 | **< 0.001** | K |
| Gender | Girl | 18 |  | 42.9% |  |  | 12 |  | 29.3% |  |  | 7 |  | 36.8% |  | 0.436 | X² |
| Boy | 24 |  | 57.1% |  |  | 29 |  | 70.7% |  |  | 12 |  | 63.2% |  |
| History of AD | (-) | 26 |  | 61.9% |  |  | 18 |  | 43.9% |  |  | 8 |  | 42.1% |  | 0.180 | X² |
| (+) | 16 |  | 38.1% |  |  | 23 |  | 56.1% |  |  | 11 |  | 57.9% |  |
| Parental asthma | (-) | 34 |  | 81.0% |  |  | 37 |  | 90.2% |  |  | 14 |  | 73.7% |  | 0.239 | X² |
| (+) | 8 |  | 19.0% |  |  | 4 |  | 9.8% |  |  | 5 |  | 26.3% |  |
| 1 parent | 7 |  | 16.7% |  |  | 4 |  | 9.8% |  |  | 5 |  | 26.3% |  |
| 2 parents | 1 |  | 2.4% |  |  | 0 |  | 0.0% |  |  | 0 |  | 0.0% |  |
| Aeroallergen sensitivity | (-) | 24 |  | 57.1% |  |  | 24 |  | 58.5% |  |  | 0 |  | 0.0% |  | **< 0.001** | X² |
| (+) | 18 |  | 42.9% |  |  | 17 |  | 41.5% |  |  | 19 |  | 100.0% |  |
| Food allergen sensitivity | (-) | 38 |  | 90.5% |  |  | 34 |  | 82.9% |  |  | 14 |  | 73.7% |  | 0.137 | X² |
| (+) | 3 |  | 7.1% |  |  | 7 |  | 17.1% |  |  | 5 |  | 26.3% |  |
| mAPI (< 36months) | (-) | 9 |  | 60% |  |  | 2 |  | 11.8% |  |  |  |  |  |  | **0.004** | X² |
| (+) | 6 |  | 40% |  |  | 15 |  | 88.2% |  |  |  |  |  |  |
| AR as a comorbidity | (-) | 22 |  | 52.4% |  |  | 19 |  | 46.3% |  |  | 6 |  | 31.6% |  | 0.320 | X² |
| (+) | 20 |  | 47.6% |  |  | 22 |  | 53.7% |  |  | 13 |  | 68.4% |  |
| Tobacco exposure | (-) | 10 |  | 23.8% |  |  | 15 |  | 36.6% |  |  | 8 |  | 42.1% |  | 0.278 | X² |
| (+) | 32 |  | 76.2% |  |  | 26 |  | 63.4% |  |  | 11 |  | 57.9% |  |
| Exacerbation/year | | 5.6 | ± | 2.3 | 5.0 |  | 7.0 | ± | 3.7 | 6.0 |  | 3.5 | ± | 2.5 | 3.0 | **< 0.001** | K |
| Number of aeroallergens\* | | 0.8 | ± | 1.1 | 0.0 |  | 1.0 | ± | 1.6 | 0.0 |  | 3.2 | ± | 2.0 | 2.0 | **< 0.001** | K |
| Eosinophil (%) | | 2.8 | ± | 2.3 | 2.1 |  | 4.4 | ± | 4.1 | 3.4 |  | 8.3 | ± | 5.0 | 6.8 | **< 0.001** | K |
| Eosinophil count (mm3) | | 257.9 | ± | 218.7 | 200 |  | 506.6 | ± | 504.6 | 400 |  | 822.6 | ± | 560.6 | 700 | **< 0.001** | K |
| Total IgE (IU/ml) | | 125.4 | ± | 174.3 | 40 |  | 157.1 | ± | 248.5 | 68 |  | 335.6 | ± | 427.7 | 173 | 0.019 | K |
| Number of food allergens\* | | 0.1 | ± | 0.5 | 0.0 |  | 0.4 | ± | 1.0 | 0.0 |  | 0.6 | ± | 1.3 | 0.0 | 0.137 | K |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

EW (Episodic Wheezing), MW (Multiple Trigger Wheezing), AR (Allergic Rhinitis), mAPI (modified Asthma Predictive Index), K Kruskal-Wallis (Mann-Whitney U test with Bonferroni correction), X² Chi-square test, AD (Atopic Dermatitis), \*Detected as positive

**Table 2. Comparison of the distribution of single nucleotide polymorphism genotypes in *ARG1* and *ARG2* genes among patients, controls, and patient subgroups**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Comparison of All Patients with Healthy Controls** | | | | | | **Comparison of Subgroups with Healthy Controls** | | | | | | | | | | **Comparison of Subgroups** | | | | |
|  | | Healthy Controls | |  | All Patients | | p | EW | | p |  | MW | | p | Asthma | | p | EW |  | EW |  | M |
|  |  | n | % |  | n | % | n | % |  | n | % | n | % | MW |  | Asthma |  | Asthma |
| rs3759757 C>G | CC | 15 | 17.4% |  | 10 | 9.8% | 0.675 | 4 | 9.5% | 0.870 |  | 4 | 9.8% | 0.431 | 2 | 10.5% | 0.526 | 0.751 |  | 0.436 |  | 0.234 |
| CG | 39 | 45.3% |  | 51 | 50.0% | 21 | 50.0% |  | 18 | 43.9% | 12 | 63.2% |  |  |
| GG\* | 32 | 37.2% |  | 41 | 40.2% | 17 | 40.5% |  | 19 | 46.3% | 5 | 26.3% |  |  |
| rs742869 G>A | GG | 34 | 39.5% |  | 31 | 30.4% | 0.719 | 12 | 28.6% | 0.357 |  | 12 | 29.3% | 0.715 | 7 | 36.8% | 0.293 | 0.846 |  | 0.083 |  | 0.148 |
| GA | 37 | 43.0% |  | 50 | 49.0% | 19 | 45.2% |  | 20 | 48.8% | 11 | 57.9% |  |  |
| AA\* | 15 | 17.4% |  | 21 | 20.6% | 11 | 26.2% |  | 9 | 22.0% | 1 | 5.3% |  |  |
| rs3742879 A>G | AA | 60 | 69.8% |  | 68 | 66.7% | 1.000 | 26 | 61.9% | 0.153 |  | 26 | 63.4% | 0.304 | 16 | 84.2% | 1.000 | 0.055 |  | 0.313 |  | NC |
| AG | 22 | 25.6% |  | 29 | 28.4% | 11 | 26.2% |  | 15 | 36.6% | 3 | 15.8% |  |  |
| GG\* | 4 | 4.7% |  | 5 | 4.9% | 5 | 11.9% |  | 0 | 0.0% | 0 | 0.0% |  |  |
| rs17249437 C>T | CC | 14 | 16.3% |  | 10 | 9.8% | 0.995 | 4 | 9.5% | 0.870 |  | 4 | 9.8% | 0.791 | 2 | 10.5% | 0.282 | 1.000 |  | 0.235 |  | 0.211 |
| CT | 40 | 46.5% |  | 54 | 52.9% | 21 | 50.0% |  | 20 | 48.8% | 13 | 68.4% |  |  |
| TT\* | 32 | 37.2% |  | 38 | 37.3% | 17 | 40.5% |  | 17 | 41.5% | 4 | 21.1% |  |  |
| rs2781668 C>T | CC | 62 | 72.1% |  | 63 | 61.8% | 0.517 | 17 | 40.5% | 1.000 |  | 33 | 80.5% | 0.176 | 13 | 68.4% | 1.000 | 0.241 |  | 1.000 |  | 0.317 |
| CT | 18 | 20.9% |  | 35 | 34.3% | 22 | 52.4% |  | 8 | 19.5% | 5 | 26.3% |  |  |
| TT\* | 6 | 7.0% |  | 4 | 3.9% | 3 | 7.1% |  | 0 | 0.0% | 1 | 5.3% |  |  |
| rs3756780 T>C | TT | 81 | 94.2% |  | 96 | 94.1% | NC | 38 | 90.5% | NC |  | 39 | 95.1% | NC | 19 | 100.0% | NC | NC |  | NC |  | NC |
| CT | 5 | 5.8% |  | 6 | 5.9% | 4 | 9.5% |  | 2 | 4.9% | 0 | 0.0% |  |  |
| rs2781659 A>G | AA | 31 | 36.0% |  | 36 | 35.3% | 1.000 | 7 | 16.7% | 1.000 |  | 21 | 51.2% | 1.000 | 8 | 42.1% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |
| AG | 39 | 45.3% |  | 48 | 47.1% | 27 | 64.3% |  | 13 | 31.7% | 8 | 42.1% |  |  |
| GG\* | 16 | 18.6% |  | 18 | 17.6% | 8 | 19.0% |  | 7 | 17.1% | 3 | 15.8% |  |  |
| rs2781665 A>T | AA | 31 | 36.0% |  | 36 | 35.3% | 1.000 | 7 | 16.7% | 1.000 |  | 21 | 51.2% | 1.000 | 8 | 42.1% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |
| AT | 39 | 45.3% |  | 48 | 47.1% | 27 | 64.3% |  | 13 | 31.7% | 8 | 42.1% |  |  |
| TT\* | 16 | 18.6% |  | 18 | 17.6% | 8 | 19.0% |  | 7 | 17.1% | 3 | 15.8% |  |  |
| rs2781667 T>C | CC\* | 37 | 43.0% |  | 37 | 36.3% | 0.345 | 7 | 16.7% | ***0.006¥*** |  | 21 | 51.2% | 0.499 | 9 | 47.4% | 0.928 | ***0.002¥*** |  | ***0.025¥*** |  | 1.000 |
| CT | 33 | 38.4% |  | 48 | 47.1% | 26 | 61.9% |  | 15 | 36.6% | 7 | 36.8% |  |  |
| TT | 16 | 18.6% |  | 17 | 16.7% | 9 | 21.4% |  | 5 | 12.2% | 3 | 15.8% |  |  |
| rs2246012 T>C | CC\* | 5 | 5.8% |  | 5 | 4.9% | 1.000 | 4 | 9.5% | 0.474 |  | 0 | 0.0% | 0.174 | 1 | 5.3% | 1.000 | 0.116 |  | 1.000 |  | 0.317 |
| CT | 18 | 20.9% |  | 33 | 32.4% | 21 | 50.0% |  | 7 | 17.1% | 5 | 26.3% |  |  |
| TT | 63 | 73.3% |  | 64 | 62.7% | 17 | 40.5% |  | 34 | 82.9% | 13 | 68.4% |  |  |
| rs3742880 T>C | TT | 59 | 68.6% |  | 71 | 69.6% | 0.594 | 30 | 71.4% | 1.000 |  | 29 | 70.7% | 1.000 | 12 | 63.2% | 0.454 | NC |  | 0.311 |  | 0.317 |
| CT | 25 | 29.1% |  | 30 | 29.4% | 12 | 28.6% |  | 12 | 29.3% | 6 | 31.6% |  |  |
| CC\* | 2 | 2.3% |  | 1 | 1.0% | 0 | 0.0% |  | 0 | 0.0% | 1 | 5.3% |  |  |
| rs6573788 C>T | CC | 10 | 11.6% |  | 7 | 6.9% | 0.885 | 2 | 4.8% | 0.859 |  | 3 | 7.3% | 1.000 | 2 | 10.5% | 0.453 | 0.905 |  | 0.372 |  | 0.533 |
| CT | 38 | 44.2% |  | 51 | 50.0% | 20 | 47.6% |  | 20 | 48.8% | 11 | 57.9% |  |  |
| TT\* | 38 | 44.2% |  | 44 | 43.1% | 20 | 47.6% |  | 18 | 43.9% | 6 | 31.6% |  |  |

\* Homozygote genotype, ***¥***Chi-square test (Fisher exact test), EW (Episodic Wheezing), MW (Multiple Trigger Wheezing), NC (not calculated)

**Table 3A. Comparison of the haplotype distribution in the *ARG1* gene among patients, controls, and patient subgroups**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Comparison of All Patients with Healthy Controls** | | | | | | **Comparison of Subgroups with Healthy Controls** | | | | | | | | | | **Comparison of Subgroups** | | | | |
|  | | Healthy Controls | |  | All Patients | | p | EW | | p |  | MW | | p | Asthma | | p | EW |  | EW |  | MW |
|  |  | n | % |  | n | % | n | % |  | n | % | n | % | MW |  | Asthma |  | Asthma |
| ***Arginase I*** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Haplotype 1 | | 12 | 14.0% |  | 21 | 20.6% | 0.318 | 8 | 19.0% | 0.627 |  | 9 | 22.0% | 0.379 | 4 | 21.1% | 0.483 | 0.956 |  | 1.000 |  | 1.000 |
| Haplotype 2 | | 12 | 14.0% |  | 19 | 18.6% | 0.507 | 13 | 31.0% | **0.041** |  | 3 | 7.3% | 0.383 | 3 | 15.8% | 0.733 | **0.014** |  | 0.346 |  | 0.370 |
| Haplotype 3 | | 0 | 0.0% |  | 1 | 1.0% | 1.000 | 1 | 2.4% | 0.328 |  | 0 | 0.0% | 1.000 | 0 | 0.0% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |
| Haplotype 4 | | 27 | 31.4% |  | 33 | 32.4% | 0.888 | 5 | 11.9% | **0.030** |  | 21 | 51.2% | **0.050** | 7 | 36.8% | 0.851 | **<0.001** |  | **0.036** |  | 0.447 |
| Haplotype 5 | | 1 | 1.2% |  | 10 | 9.8% | **0.028** | 6 | 14.3% | **0.005** |  | 3 | 7.3% | 0.099 | 1 | 5.3% | 0.331 | 0.483 |  | 0.418 |  | 1.000 |
| Haplotype 6 | | 2 | 2.3% |  | 1 | 1.0% | 0.594 | 1 | 2.4% | 1.000 |  | 0 | 0.0% | 1.000 | 0 | 0.0% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |
| Haplotype 7 | | 3 | 3.5% |  | 3 | 2.9% | 1.000 | 3 | 7.1% | 0.393 |  | 0 | 0.0% | 0.550 | 0 | 0.0% | 1.000 | 0.241 |  | 0.545 |  | 1.000 |
| Haplotype 8 | | 0 | 0.0% |  | 1 | 1.0% | 1.000 | 0 | 0.0% | 1.000 |  | 1 | 2.4% | 0.323 | 0 | 0.0% | 1.000 | 0.494 |  | 1.000 |  | 1.000 |
| Haplotype 9 | | 10 | 11.6% |  | 2 | 2.0% | **0.016** | 1 | 2.4% | 0.100 |  | 0 | 0.0% | **0.030** | 1 | 5.3% | 0.684 | 1.000 |  | 0.530 |  | 0.317 |
| Haplotype 10 | | 0 | 0.0% |  | 1 | 1.0% | 1.000 | 0 | 0.0% | 1.000 |  | 1 | 2.4% | 0.323 | 0 | 0.0% | 1.000 | 0.494 |  | 1.000 |  | 1.000 |
| Haplotype 11 | | 1 | 1.2% |  | 2 | 2.0% | 1.000 | 1 | 2.4% | 0.550 |  | 0 | 0.0% | 1.000 | 1 | 5.3% | 0.331 | 1.000 |  | 0.530 |  | 0.317 |
| Haplotype 12 | | 3 | 3.5% |  | 3 | 2.9% | 1.000 | 2 | 4.8% | 0.663 |  | 0 | 0.0% | 0.550 | 1 | 5.3% | 0.556 | 0.494 |  | 1.000 |  | 0.317 |
| Haplotype 13 | | 2 | 2.3% |  | 1 | 1.0% | 0.594 | 0 | 0.0% | 1.000 |  | 1 | 2.4% | 1.000 | 0 | 0.0% | 1.000 | 0.494 |  | 1.000 |  | 1.000 |
| Haplotype 14 | | 0 | 0.0% |  | 1 | 1.0% | 1.000 | 0 | 0.0% | 1.000 |  | 1 | 2.4% | 0.323 | 0 | 0.0% | 1.000 | 0.494 |  | 1.000 |  | 1.000 |
| Haplotype 15 | | 0 | 0.0% |  | 1 | 1.0% | 1.000 | 1 | 2.4% | 0.328 |  | 0 | 0.0% | 1.000 | 0 | 0.0% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |
| Haplotype 16 | | 0 | 0.0% |  | 1 | 1.0% | 1.000 | 0 | 0.0% | 1.000 |  | 1 | 2.4% | 0.323 | 0 | 0.0% | 1.000 | 0.494 |  | 1.000 |  | 1.000 |
| Haplotype 17 | | 4 | 4.7% |  | 1 | 1.0% | 0.180 | 0 | 0.0% | 0.302 |  | 0 | 0.0% | 0.304 | 1 | 5.3% | 1.000 | 1.000 |  | 0.311 |  | 0.317 |
| Haplotype 18 | | 3 | 3.5% |  | 0 | 0.0% | 0.094 | 0 | 0.0% | 0.550 |  | 0 | 0.0% | 0.550 | 0 | 0.0% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |

EW (Episodic Wheezing), MW (Multiple Trigger Wheezing)

**Table 3B. Comparison of the haplotype distribution in the *ARG2* gene among patients, controls, and patient subgroups**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | **Comparison of All Patients with Healthy Controls** | | | | | | **Comparison of Subgroups with Healthy Controls** | | | | | | | | | | **Comparison of Subgroups** | | | | |
|  | | Healthy Controls | |  | All Patients | | p | EW | | p |  | MW | | p | Asthma | | p | EW |  | EW |  | MW |
|  |  | n | % |  | n | % | n | % |  | n | % | n | % | MW |  | Asthma |  | Asthma |
| ***Arginase II*** | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Haplotype 1 | | 2 | 2.3% |  | 6 | 5.9% | 0.293 | 2 | 4.8% | 0.597 |  | 3 | 7.3% | 0.327 | 1 | 5.3% | 0.454 | 0.676 |  | 1.000 |  | 1.000 |
| Haplotype 2 | | 5 | 5.8% |  | 6 | 5.9% | 1.000 | 4 | 9.5% | 0.474 |  | 2 | 4.9% | 1.000 | 0 | 0.0% | 0.582 | 0.676 |  | 0.300 |  | 1.000 |
| Haplotype 3 | | 6 | 7.0% |  | 10 | 9.8% | 0.667 | 4 | 9.5% | 0.728 |  | 3 | 7.3% | 1.000 | 3 | 15.8% | 0.206 | 1.000 |  | 0.667 |  | 0.370 |
| Haplotype 4 | | 4 | 4.7% |  | 8 | 7.8% | 0.554 | 2 | 4.8% | 1.000 |  | 4 | 9.8% | 0.271 | 2 | 10.5% | 0.297 | 0.433 |  | 0.582 |  | 1.000 |
| Haplotype 5 | | 7 | 8.1% |  | 9 | 8.8% | 1.000 | 5 | 11.9% | 0.527 |  | 1 | 2.4% | 0.435 | 3 | 15.8% | 0.383 | 0.202 |  | 0.695 |  | 0.089 |
| Haplotype 6 | | 6 | 7.0% |  | 5 | 4.9% | 0.720 | 3 | 7.1% | 1.000 |  | 1 | 2.4% | 0.427 | 1 | 5.3% | 1.000 | 0.616 |  | 1.000 |  | 0.537 |
| Haplotype 7 | | 8 | 9.3% |  | 8 | 7.8% | 0.924 | 3 | 7.1% | 1.000 |  | 4 | 9.8% | 1.000 | 1 | 5.3% | 1.000 | 0.713 |  | 1.000 |  | 1.000 |
| Haplotype 8 | | 2 | 2.3% |  | 3 | 2.9% | 1.000 | 2 | 4.8% | 0.597 |  | 0 | 0.0% | 1.000 | 1 | 5.3% | 0.454 | 0.494 |  | 1.000 |  | 0.317 |
| Haplotype 9 | | 4 | 4.7% |  | 6 | 5.9% | 0.757 | 1 | 2.4% | 1.000 |  | 4 | 9.8% | 0.271 | 1 | 5.3% | 1.000 | 0.202 |  | 0.530 |  | 1.000 |
| Haplotype 10 | | 2 | 2.3% |  | 2 | 2.0% | 1.000 | 1 | 2.4% | 1.000 |  | 1 | 2.4% | 1.000 | 0 | 0.0% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |
| Haplotype 11 | | 7 | 8.1% |  | 7 | 6.9% | 0.957 | 3 | 7.1% | 1.000 |  | 3 | 7.3% | 1.000 | 1 | 5.3% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |
| Haplotype 12 | | 1 | 1.2% |  | 2 | 2.0% | 1.000 | 0 | 0.0% | 1.000 |  | 2 | 4.9% | 0.244 | 0 | 0.0% | 1.000 | 0.241 |  | 1.000 |  | 1.000 |
| Haplotype 13 | | 4 | 4.7% |  | 9 | 8.8% | 0.404 | 3 | 7.1% | 0.683 |  | 5 | 12.2% | 0.147 | 1 | 5.3% | 1.000 | 0.483 |  | 1.000 |  | 0.654 |
| Haplotype 14 | | 4 | 4.7% |  | 5 | 4.9% | 1.000 | 5 | 11.9% | 0.153 |  | 0 | 0.0% | 0.304 | 0 | 0.0% | 1.000 | 0.055 |  | 0.313 |  | 1.000 |
| Haplotype 15 | | 2 | 2.3% |  | 2 | 2.0% | 1.000 | 1 | 2.4% | 1.000 |  | 1 | 2.4% | 1.000 | 0 | 0.0% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |
| Haplotype 16 | | 1 | 1.2% |  | 1 | 1.0% | 1.000 | 1 | 2.4% | 0.550 |  | 0 | 0.0% | 1.000 | 0 | 0.0% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |
| Haplotype 17 | | 0 | 0.0% |  | 1 | 1.0% | 1.000 | 0 | 0.0% | 1.000 |  | 1 | 2.4% | 0.323 | 0 | 0.0% | 1.000 | 0.494 |  | 1.000 |  | 1.000 |
| Haplotype 18 | | 4 | 4.7% |  | 3 | 2.9% | 0.704 | 2 | 4.8% | 1.000 |  | 1 | 2.4% | 1.000 | 0 | 0.0% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |
| Haplotype 19 | | 5 | 5.8% |  | 1 | 1.0% | 0.095 | 0 | 0.0% | 0.171 |  | 1 | 2.4% | 0.663 | 0 | 0.0% | 0.582 | 0.494 |  | 1.000 |  | 1.000 |
| Haplotype 20 | | 2 | 2.3% |  | 2 | 2.0% | 1.000 | 0 | 0.0% | 1.000 |  | 1 | 2.4% | 1.000 | 1 | 5.3% | 0.454 | 0.494 |  | 0.311 |  | 0.537 |
| Haplotype 21 | | 0 | 0.0% |  | 1 | 1.0% | 1.000 | 0 | 0.0% | 1.000 |  | 1 | 2.4% | 0.323 | 0 | 0.0% | 1.000 | 0.494 |  | 1.000 |  | 1.000 |
| Haplotype 22 | | 2 | 2.3% |  | 1 | 1.0% | 0.594 | 0 | 0.0% | 1.000 |  | 0 | 0.0% | 1.000 | 1 | 5.3% | 0.454 | 1.000 |  | 0.311 |  | 0.317 |
| Haplotype 23 | | 0 | 0.0% |  | 1 | 1.0% | 1.000 | 0 | 0.0% | 1.000 |  | 1 | 2.4% | 0.323 | 0 | 0.0% | 1.000 | 0.494 |  | 1.000 |  | 1.000 |
| Haplotype 24 | | 0 | 0.0% |  | 1 | 1.0% | 1.000 | 0 | 0.0% | 1.000 |  | 0 | 0.0% | 1.000 | 1 | 5.3% | 0.181 | 1.000 |  | 0.311 |  | 0.317 |
| Haplotype 25 | | 0 | 0.0% |  | 1 | 1.0% | 1.000 | 0 | 0.0% | 1.000 |  | 0 | 0.0% | 1.000 | 1 | 5.3% | 0.181 | 1.000 |  | 0.311 |  | 0.317 |
| Haplotype 26 | | 1 | 1.2% |  | 0 | 0.0% | 0.457 | 0 | 0.0% | 1.000 |  | 0 | 0.0% | 1.000 | 0 | 0.0% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |
| Haplotype 27 | | 3 | 3.5% |  | 0 | 0.0% | 0.094 | 0 | 0.0% | 0.550 |  | 0 | 0.0% | 0.550 | 0 | 0.0% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |
| Haplotype 28 | | 1 | 1.2% |  | 0 | 0.0% | 0.457 | 0 | 0.0% | 1.000 |  | 0 | 0.0% | 1.000 | 0 | 0.0% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |
| Haplotype 29 | | 1 | 1.2% |  | 0 | 0.0% | 0.457 | 0 | 0.0% | 1.000 |  | 0 | 0.0% | 1.000 | 0 | 0.0% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |
| Haplotype 30 | | 1 | 1.2% |  | 0 | 0.0% | 0.457 | 0 | 0.0% | 1.000 |  | 0 | 0.0% | 1.000 | 0 | 0.0% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |
| Haplotype 31 | | 1 | 1.2% |  | 0 | 0.0% | 0.457 | 0 | 0.0% | 1.000 |  | 0 | 0.0% | 1.000 | 0 | 0.0% | 1.000 | 1.000 |  | 1.000 |  | 1.000 |

EW (Episodic Wheezing), MW (Multiple Trigger Wheezing)