**Supplementary table S2. Expression levels of the top 10 genes that contribute most negatively (Healthy controls class) to the model according to the logistic regression model**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **class** | **Negative** | | | | | | | | | | |
| **gene** | **8137264** | **7983890** | **8110971** | **7904967** | **8106025** | **7985431** | **8031570** | **8007848** | **8029693** | **7914180** |
| Healthy control | GSM665386 | 6.23 | 7.20 | 6.39 | 9.55 | 4.30 | 5.84 | 3.02 | 5.23 | 8.45 | 4.96 |
| Healthy control | GSM665387 | 7.64 | 6.63 | 7.03 | 9.43 | 3.72 | 6.95 | 3.63 | 6.06 | 9.03 | 3.87 |
| Healthy control | GSM665388 | 9.29 | 6.54 | 5.61 | 9.02 | 3.48 | 4.89 | 3.34 | 6.18 | 7.86 | 4.45 |
| Healthy control | GSM665389 | 7.24 | 8.23 | 5.66 | 9.32 | 2.16 | 6.82 | 3.44 | 5.98 | 7.94 | 4.89 |
| Healthy control | GSM665390 | 7.60 | 6.61 | 6.10 | 6.58 | 2.55 | 7.01 | 4.49 | 4.76 | 7.83 | 4.19 |
| Healthy control | GSM665391 | 8.77 | 7.10 | 5.95 | 8.24 | 2.17 | 7.30 | 4.99 | 5.80 | 6.92 | 3.57 |
| Healthy control | GSM665392 | 8.32 | 7.45 | 5.23 | 9.47 | 2.55 | 6.31 | 3.43 | 6.09 | 9.84 | 4.71 |
| Healthy control | GSM665393 | 6.21 | 7.18 | 6.04 | 8.83 | 2.32 | 7.49 | 4.86 | 4.31 | 7.33 | 4.80 |
| Healthy control | GSM665394 | 8.42 | 7.06 | 7.73 | 8.45 | 1.76 | 6.97 | 3.31 | 5.49 | 7.98 | 5.01 |
| Healthy control | GSM665395 | 8.48 | 7.37 | 5.94 | 8.64 | 4.26 | 6.77 | 5.60 | 5.17 | 7.45 | 5.03 |
| Healthy control | GSM665396 | 8.18 | 7.23 | 6.77 | 8.75 | 5.44 | 6.29 | 3.66 | 6.25 | 8.88 | 3.00 |
| Healthy control | GSM665397 | 7.37 | 6.74 | 6.31 | 9.30 | 2.73 | 6.61 | 4.85 | 6.29 | 9.73 | 5.03 |
| Healthy control | GSM665398 | 6.38 | 6.81 | 5.69 | 7.08 | 3.42 | 7.07 | 6.93 | 4.93 | 6.80 | 5.61 |
| Healthy control | GSM665399 | 5.91 | 7.22 | 5.64 | 8.66 | 3.24 | 6.64 | 3.76 | 5.28 | 6.51 | 3.95 |
| Healthy control | GSM665400 | 7.78 | 7.04 | 6.53 | 9.49 | 2.51 | 6.99 | 3.06 | 6.17 | 8.22 | 6.21 |
| Healthy control | GSM665401 | 8.44 | 6.93 | 6.30 | 9.69 | 2.35 | 6.58 | 3.46 | 6.10 | 7.89 | 4.76 |
| Healthy control | GSM665402 | 8.46 | 7.56 | 6.32 | 8.38 | 2.75 | 6.75 | 3.31 | 5.08 | 7.86 | 3.35 |
| Healthy control | GSM665403 | 6.15 | 6.37 | 6.59 | 8.96 | 2.22 | 6.00 | 3.97 | 5.18 | 8.77 | 4.85 |
| Severe asthma | GSM665423 | 6.20 | 5.84 | 5.01 | 9.03 | 2.44 | 6.46 | 3.56 | 4.35 | 7.34 | 3.94 |
| Severe asthma | GSM665424 | 5.74 | 7.15 | 5.30 | 9.30 | 2.37 | 5.75 | 2.92 | 3.98 | 7.28 | 3.23 |
| Severe asthma | GSM665425 | 8.01 | 5.92 | 5.45 | 9.02 | 1.99 | 6.53 | 3.33 | 5.32 | 8.05 | 4.92 |
| Severe asthma | GSM665426 | 7.60 | 6.17 | 5.47 | 9.20 | 2.38 | 5.80 | 3.63 | 5.09 | 7.42 | 5.13 |
| Severe asthma | GSM665427 | 8.00 | 6.28 | 5.95 | 9.27 | 2.10 | 6.39 | 4.38 | 5.11 | 7.11 | 3.45 |
| Severe asthma | GSM665428 | 6.64 | 6.51 | 5.36 | 8.90 | 2.55 | 4.85 | 3.23 | 7.34 | 6.93 | 5.85 |
| Severe asthma | GSM665429 | 8.09 | 6.15 | 5.33 | 9.42 | 2.68 | 6.08 | 3.27 | 5.20 | 7.12 | 5.00 |
| Severe asthma | GSM665430 | 7.86 | 6.43 | 5.63 | 8.81 | 2.88 | 6.96 | 3.63 | 5.46 | 7.68 | 3.46 |
| Severe asthma | GSM665431 | 5.74 | 5.99 | 5.02 | 6.42 | 2.62 | 6.74 | 3.17 | 4.70 | 6.74 | 4.25 |
| Severe asthma | GSM665432 | 8.25 | 5.91 | 5.46 | 8.30 | 2.91 | 6.24 | 3.35 | 4.08 | 6.69 | 2.57 |
| Severe asthma | GSM665433 | 6.57 | 7.40 | 5.37 | 9.21 | 2.40 | 5.48 | 3.43 | 3.60 | 7.31 | 3.35 |
| Severe asthma | GSM665434 | 7.77 | 6.14 | 6.02 | 6.84 | 2.43 | 6.53 | 3.99 | 3.87 | 6.91 | 2.96 |
| Severe asthma | GSM665435 | 7.88 | 6.61 | 5.96 | 6.55 | 2.56 | 5.58 | 3.35 | 4.62 | 6.88 | 5.27 |
| Severe asthma | GSM665436 | 8.69 | 7.85 | 5.94 | 9.36 | 3.15 | 5.32 | 3.26 | 5.77 | 7.07 | 3.53 |
| Severe asthma | GSM665437 | 7.88 | 6.47 | 5.64 | 9.53 | 2.50 | 6.32 | 3.51 | 6.02 | 7.03 | 4.93 |
| Severe asthma | GSM665438 | 6.02 | 6.35 | 5.77 | 9.56 | 2.46 | 6.31 | 3.17 | 5.80 | 8.26 | 4.64 |
| Severe asthma | GSM665439 | 6.76 | 6.40 | 5.81 | 8.52 | 2.30 | 6.55 | 3.30 | 4.93 | 6.62 | 3.43 |