

**Supplementary table S3. The top 10 genes that contribute most positively (Severe asthma class) to the model according to the logistic regression model**

		Positive									
class	gene	8117018	7908861	7967028	7928489	8052581	8154211	7968295	8031152	8055639	7975453
Healthy control	GSM665 386	4.68	6.95	6.01	6.79	4.34	7.01	3.88	3.96	5.72	3.73
Healthy control	GSM665 387	4.03	6.16	6.20	6.86	4.14	6.44	3.32	2.77	5.82	4.00
Healthy control	GSM665 388	5.42	8.51	6.21	7.45	3.54	7.04	4.40	5.10	6.92	6.02
Healthy control	GSM665 389	4.49	6.95	6.86	6.92	3.71	5.96	3.71	3.99	6.30	4.78
Healthy control	GSM665 390	3.38	5.77	6.23	7.28	5.96	6.14	3.64	5.72	5.76	4.06
Healthy control	GSM665 391	5.50	7.04	7.04	7.16	3.07	6.61	3.84	4.33	6.45	4.82
Healthy control	GSM665 392	4.83	6.87	6.44	7.09	4.99	7.07	3.80	3.42	6.67	5.35
Healthy control	GSM665 393	4.72	7.42	5.45	7.04	2.80	6.49	3.73	5.58	6.50	4.21
Healthy control	GSM665 394	3.79	6.39	6.08	6.87	4.69	5.53	3.32	4.41	6.40	3.84
Healthy control	GSM665 395	4.59	7.51	5.78	6.77	3.45	6.97	3.60	5.84	6.39	4.58
Healthy control	GSM665 396	4.73	6.75	6.08	6.84	3.89	4.98	3.45	5.26	6.80	4.69
Healthy control	GSM665 397	5.92	7.35	7.62	7.52	3.96	5.11	4.09	5.35	6.59	4.44
Healthy control	GSM665 398	4.39	6.84	6.41	7.05	4.12	5.98	3.58	4.13	6.07	3.58
Healthy control	GSM665 399	4.93	7.63	6.39	7.27	3.17	5.79	3.91	5.67	7.00	4.91
Healthy control	GSM665 400	5.59	6.90	6.26	7.69	4.39	7.16	4.18	5.12	6.14	4.14
Healthy control	GSM665 401	3.62	7.21	8.48	7.04	5.52	5.55	3.38	5.10	6.10	4.34
Healthy control	GSM665 402	5.54	7.36	6.14	7.10	3.93	6.86	3.92	5.44	6.45	4.22
Healthy control	GSM665 403	3.82	7.17	6.19	6.64	3.72	6.64	3.25	3.78	6.08	4.31
Severe asthma	GSM665 423	5.92	8.19	8.26	8.26	5.43	5.23	4.28	5.00	7.03	5.32
Severe asthma	GSM665 424	6.09	8.07	7.98	8.06	5.23	7.08	4.49	4.45	6.68	4.77
Severe asthma	GSM665 425	6.57	8.36	8.80	8.20	4.33	6.66	5.19	5.65	7.00	5.95
Severe asthma	GSM665 426	6.52	7.71	7.35	7.84	4.49	6.67	4.72	4.10	7.29	5.25
Severe asthma	GSM665 427	6.34	9.20	8.38	8.51	4.78	8.10	5.13	5.00	7.17	6.31
Severe asthma	GSM665 428	6.24	8.41	8.29	8.26	4.84	7.43	4.60	6.44	7.12	6.14
Severe asthma	GSM665 429	5.84	8.11	7.23	8.21	6.60	7.90	4.40	4.81	7.86	5.29
Severe asthma	GSM665 430	7.64	9.05	8.28	8.94	3.89	6.89	6.00	5.91	7.95	6.39
Severe asthma	GSM665 431	5.51	8.88	5.92	7.52	4.47	7.40	4.17	5.84	6.75	4.75
Severe asthma	GSM665 432	7.16	8.81	7.98	8.90	3.84	7.77	5.35	4.43	7.86	5.65
Severe asthma	GSM665 433	6.00	7.55	6.71	8.57	4.16	6.67	5.03	5.39	7.09	5.56
Severe asthma	GSM665 434	6.00	7.67	7.85	8.23	5.04	6.89	5.04	5.79	7.39	4.74
Severe asthma	GSM665 435	6.06	8.34	6.64	7.86	3.85	6.80	4.44	4.84	7.78	5.54

Severe asthma	GSM665 436	5.87	8.56	7.66	7.71	4.90	7.75	4.46	5.48	7.31	4.79
Severe asthma	GSM665 437	7.70	9.19	9.48	9.51	4.71	6.15	6.29	2.55	8.13	7.08
Severe asthma	GSM665 438	6.46	8.85	7.88	7.97	3.97	5.73	4.59	5.14	6.90	5.69
Severe asthma	GSM665 439	6.40	7.50	6.69	8.02	3.51	5.99	5.58	5.33	7.78	5.17