INVENTORY OF SUPPLEMENTAL INFORMATION

I. Supplemental Tables

II. Supplemental Figures

Supplementary Table 1. Complete list of haplotype-based genetic mapping on the phenotypes of collagen accumulation in the lungs of TGF-b Tg mice on 10 different background strains.

Gene Symbol	Haplotype pattern	P Value	Genetic effect	Chromosome	Gene location (start)	Gene location (end)
Trim23	1122233344	2.79E-05	0.961	13	104958459	104976701
2410002O22Rik	1122233344	2.79E-05	0.961	13	104958459	104976701
Adamts6	1122233344	2.79E-05	0.961	13	105051250	105221097
Cenpk	1122233344	2.79E-05	0.961	13	105051250	105221097
Sfrs12	1222233344	9.77E-05	0.941	13	104410127	104578031
U6	1222233344	9.77E-05	0.941	13	104410127	104578031
4930449A18Rik	1111122233	0.000132885	0.890	3	59525075	59646579
C130079G13Rik	1111122233	0.000132885	0.890	3	59727651	59762165
Mbnl1	1111122233	0.000132885	0.890	3	60311917	60343090
Mast4	1111122233	0.000132885	0.890	13	104062569	104062660
5S_rRNA	1111122233	0.000132885	0.890	13	104177293	104187638
7SK	1111122233	0.000132885	0.890	13	104201841	104203051
Pa2g4	1122233345	0.000141253	0.965	10	127893290	128472319
Olfr227	1122233345	0.000141253	0.965	10	127893290	128472319
Sarnp	1122233345	0.000141253	0.965	10	127893290	128472319
Erbb3	1122233345	0.000141253	0.965	10	127893290	128472319
Rps26	1122233345	0.000141253	0.965	10	127893290	128472319
Itga7	1122233345	0.000141253	0.965	10	127893290	128472319
Mettl7b	1122233345	0.000141253	0.965	10	127893290	128472319
Olfr9	1122233345	0.000141253	0.965	10	127893290	128472319
Esyt1	1122233345	0.000141253	0.965	10	127893290	128472319
Smarcc2	1122233345	0.000141253	0.965	10	127893290	128472319
Olfr763	1122233345	0.000141253	0.965	10	127893290	128472319
Nln	1122233455	0.000211643	0.959	13	104807158	104934954
Sgtb	1122233455	0.000211643	0.959	13	104807158	104934954
Ppwd1	1122344455	0.000266728	0.955	13	104958459	105018446
Acss2	11111?2222	0.000372359	0.815	2	155346387	155347064
Procr	11111?2222	0.000372359	0.815	2	155585809	155590939
Phf20	11111?2222	0.000372359	0.815	2	156125022	156131692
Rya3	1111122222	0.000420928	0.763	2	153751918	153752250

Pigu	1111122222	0.000420928	0.763	2	155073814	155084230
Dynlrb1	1111122222	0.000420928	0.763	2	155073814	155084230
Ggt7	1111122222	0.000420928	0.763	2	155322811	155323881
Gss	1111122222	0.000420928	0.763	2	155407508	155408126
P2ry12	1111122222	0.000420928	0.763	3	59025816	59036498
Med12l	1111122222	0.000420928	0.763	3	59025816	59036498
Olfr1339	1111122222	0.000420928	0.763	4	118403918	118404639
Olfr1338	1111122222	0.000420928	0.763	4	118421074	118422096
Slc2a1	1111122222	0.000420928	0.763	4	118811720	118814046
Ermap	1111122222	0.000420928	0.763	4	118848113	118851464
Sez6l	1111122222	0.000420928	0.763	5	112896485	112902776
Coro1c	1111122222	0.000420928	0.763	5	114326211	114330150
Lama3	1111122222	0.000420928	0.763	18	12642397	12642532
Aadac	1111233344	0.000547193	0.895	3	59727651	59885708
Sucnr1	1111233344	0.000547193	0.895	3	59727651	59885708
C80913	1112234455	0.000586752	0.938	7	38709300	38859712
Sgsm1	1111122223	0.000625818	0.829	5	113730431	113738119
Dlx5	1111122223	0.000625818	0.829	6	6631299	6866399
Dlx6	1111122223	0.000625818	0.829	6	6631299	6866399
U1	1111122223	0.000625818	0.829	6	6631299	6866399
Acn9	1111122223	0.000625818	0.829	6	6866473	7294581
Sorl1	1111122333	0.00065382	0.827	9	41816832	41817737
Clcn7	1111122333	0.00065382	0.827	17	25291616	25294050
Chmp5	1222233455	0.000669528	0.935	4	40481357	40972607
Dnaja1	1222233455	0.000669528	0.935	4	40481357	40972607
Aptx	1222233455	0.000669528	0.935	4	40481357	40972607
Aqp7	1222233455	0.000669528	0.935	4	40481357	40972607
B4galt1	1222233455	0.000669528	0.935	4	40481357	40972607
Nfx1	1222233455	0.000669528	0.935	4	40481357	40972607
Erbb2ip	1222233455	0.000669528	0.935	13	104410127	104642912
A430084P05Rik	1111123233	0.000770207	0.819	11	70624707	70626444
Nlrp1a	1111123233	0.000770207	0.819	11	70913032	70920399
Gm900	1111??2233	0.000827368	0.907	12	114509760	114510056
a	1111??2222	0.000839685	0.822	2	154773100	154774299
Ttll9	11111?2223	0.000924287	0.856	2	152804374	152809498

Kidins220	1122233445	0.0009324	0.925	12	25727398	25747268
Sfrs12ip1	1121133344	0.000933332	0.875	13	105436646	105716861
Sdccag10	1121133344	0.000933332	0.875	13	105436646	105716861
Cntn6	1112223344	0.000967557	0.873	6	104730549	104731645
U7	1112223344	0.000967557	0.873	7	38860719	38976107
Ccne1	1112223344	0.000967557	0.873	7	38860719	38976107
1600014C10Rik	1112223344	0.000967557	0.873	7	38860719	38976107
Ssh1	1122233333	0.00100894	0.805	5	114426808	114428570
Prpf40b	1222233334	0.00105085	0.870	15	99128636	99170207
Fmnl3	1222233334	0.00105085	0.870	15	99128636	99170207
Raly	1111123333	0.00115961	0.797	2	154675795	154679481
Itch	1111123333	0.00115961	0.797	2	154999486	155002946
Ncoa6	1111123333	0.00115961	0.797	2	155176811	155279788
Trp53inp2	1111123333	0.00115961	0.797	2	155176811	155279788
Myh7b	1111123333	0.00115961	0.797	2	155399749	155430205
Edem2	1111123333	0.00115961	0.797	2	155493807	155550478
Trpc4ap	1111123333	0.00115961	0.797	2	155493807	155550478
Uqcc	1111123333	0.00115961	0.797	2	155710830	155711327
Gdf5	1111123333	0.00115961	0.797	2	155767272	155770500
Rbm39	1111123333	0.00115961	0.797	2	156000136	156016531
4921517L17Rik	1111123333	0.00115961	0.797	2	156159171	156169077
Epb4.1l1	1111123333	0.00115961	0.797	2	156351375	156356496
2610036D13Rik	1111123333	0.00115961	0.797	2	157821376	157825707
Szt2	1111123333	0.00115961	0.797	4	118048184	118048470
Wdr65	1111123333	0.00115961	0.797	4	118253268	118257100
Selplg	1111123333	0.00115961	0.797	5	114275354	114287303
Sart3	1122234445	0.00119931	0.917	5	114222024	114259226
Tmem119	1122234445	0.00119931	0.917	5	114222024	114259226
Iscu	1122234445	0.00119931	0.917	5	114222024	114259226
Asph	1122234345	0.00120379	0.917	4	9458027	9461411
Gpr33	1111222233	0.00124849	0.793	12	53127082	53129093
Gjd4	1111222233	0.00124849	0.793	18	9271426	9272968
Ccny	1111222233	0.00124849	0.793	18	9413651	9417980
Colec12	1111222233	0.00124849	0.793	18	9719100	9722628
Svop	1122223333	0.00133997	0.789	5	114482121	114484701

Trib1	1122223333	0.00133997	0.789	15	59497493	59527314
Eif2s2	1111112222	0.00138282	0.686	2	154702772	154706153
Ahcy	1111112222	0.00138282	0.686	2	154864296	154892655
Mmp24	1111112222	0.00138282	0.686	2	155609722	155610391
BC029722	1111112222	0.00138282	0.686	2	155642980	155644833
Eif6	1111112222	0.00138282	0.686	2	155646159	155647214
Fam83c	1111112222	0.00138282	0.686	2	155651811	155656603
Cep250	1111112222	0.00138282	0.686	2	155783327	155785583
6430550D23Rik	1111112222	0.00138282	0.686	2	155799643	155801850
Fer1l4	1111112222	0.00138282	0.686	2	155827066	155849078
Ergic3	1111112222	0.00138282	0.686	2	155827066	155849078
Spag4	1111112222	0.00138282	0.686	2	155892500	155894342
Cpne1	1111112222	0.00138282	0.686	2	155897108	155899865
Nfs1	1111112222	0.00138282	0.686	2	155958382	155960250
Romo1	1111112222	0.00138282	0.686	2	155969584	155972191
Scand1	1111112222	0.00138282	0.686	2	156136925	156143853
RP24-114E18.3	1111112222	0.00138282	0.686	2	156229727	156232150
0610011L14Rik	1111112222	0.00138282	0.686	2	156375604	156377302
RP23-55C8.3	1111112222	0.00138282	0.686	2	156397451	156409252
Wscd2	1122234444	0.00155689	0.852	5	113881199	114000324
1700069L16Rik	1122234444	0.00155689	0.852	5	114070289	114146581
Cmklr1	1122234444	0.00155689	0.852	5	114070289	114146581
Ctnnbl1	1111123334	0.00187748	0.842	2	157575045	157591537
Vipr2	1111123322	0.00196043	0.765	12	117352635	117353278
Farp1	1121234455	0.00204152	0.898	14	121537001	121920531
Slc15a1	1121234455	0.00204152	0.898	14	121537001	121920531
Stk24	1121234455	0.00204152	0.898	14	121537001	121920531
Pofut1	1111122323	0.00214303	0.759	2	153012886	153134305
Tspyl3	1111122323	0.00214303	0.759	2	153012886	153134305
Tm9sf4	1111122323	0.00214303	0.759	2	153012886	153134305
Plagl2	1111122323	0.00214303	0.759	2	153012886	153134305
Kif3b	1111122323	0.00214303	0.759	2	153012886	153134305
Asxl1	1111122323	0.00214303	0.759	2	153137507	153175577
8430427H17Rik	1111122323	0.00214303	0.759	2	153196427	153263306
Commd7	1111122323	0.00214303	0.759	2	153413223	153435051

Ptprf	1111122323	0.00214303	0.759	4	117959992	117980627
2610528J11Rik	1111122323	0.00214303	0.759	4	118199266	118200575
Olfr1341	1111122323	0.00214303	0.759	4	118383628	118386114
Olfr1340	1111122323	0.00214303	0.759	4	118388214	118394266
SNORA17	1111122323	0.00214303	0.759	4	118659228	118660310
Zfp691	1111122323	0.00214303	0.759	4	118803312	118839994
Hivep3	1111122323	0.00214303	0.759	4	119619081	119628396
Ptprn2	1111122323	0.00214303	0.759	12	117775579	117776239
Dnahc7a	1112122333	0.00221258	0.757	1	46834146	46837154
Tnn	1112222233	0.00222115	0.757	1	162054844	162056131
Cd300c	1122223334	0.00225287	0.832	11	114806980	114820922
Edn2	1121233333	0.00227015	0.755	4	119773620	119871623
Cftr	1121233333	0.00227015	0.755	6	18242258	18249971
Igh-5	1122133334	0.00231165	0.831	12	114645772	114650762
Igh-6	1122133334	0.00231165	0.831	12	114658424	114659927
Skint5	1121233444	0.00241442	0.828	4	113615151	113671006
Ankrd29	1111233333	0.00244499	0.750	18	12406135	12410799
Cdk5rap1	1111123222	0.00261941	0.745	2	154194023	154195113
Ncapg2	1111123222	0.00261941	0.745	12	117652674	117662000
Heatr5a	1121344455	0.00265898	0.886	12	53078874	53139019
6530401N04Rik	1121344455	0.00265898	0.886	12	53078874	53139019
Rgs7bp	1121344455	0.00265898	0.886	13	105439818	105761703
1110012J17Rik	1112234345	0.0026644	0.886	17	66108536	66778658
Twsg1	1112234345	0.0026644	0.886	17	66108536	66778658
Ndufv2	1112234345	0.0026644	0.886	17	66108536	66778658
Ddx11	1112234345	0.0026644	0.886	17	66108536	66778658
Ralbp1	1112234345	0.0026644	0.886	17	66108536	66778658
ORF19	1112234345	0.0026644	0.886	17	66108536	66778658
Ppp4r1	1112234345	0.0026644	0.886	17	66108536	66778658
Ankrd12	1112234345	0.0026644	0.886	17	66108536	66778658
Rab31	1112234345	0.0026644	0.886	17	66108536	66778658
Pop4	1111112233	0.00266957	0.744	7	38976798	39042091
Plekhf1	1111112233	0.00266957	0.744	7	38976798	39042091
P2ry13	1111233345	0.00267753	0.886	3	58973491	59036498
Gpr87	1111233345	0.00267753	0.886	3	58973491	59036498

Adam6a	1223334455	0.00272161	0.885	12	114966245	114967253
Gm7292	1121223333	0.00272298	0.743	2	156226059	156227530
Rem1	1111122322	0.00275781	0.742	2	152442810	152462730
Defb25	1111122322	0.00275781	0.742	2	152442810	152462730
Defb36	1111122322	0.00275781	0.742	2	152442810	152462730
Dhx33	1111122322	0.00275781	0.742	11	70811040	70819377
Derl2	1111122322	0.00275781	0.742	11	70811040	70819377
6330403K07Rik	1111122322	0.00275781	0.742	11	70827760	70848588
Mis12	1111122322	0.00275781	0.742	11	70827760	70848588
Klrb1c	1111233455	0.00304529	0.880	6	128737849	128741988
Rtkn2	1111233455	0.00304529	0.880	10	67474217	67536884
Dlgap4	1111122332	0.00308782	0.733	2	156430179	156443364
Gm5840	1121133333	0.00309508	0.733	2	153813432	153820305
Tmem125	1121133333	0.00309508	0.733	4	118212347	118226660
Lao1	1121133333	0.00309508	0.733	4	118637898	118639553
Ccdc30	1121133333	0.00309508	0.733	4	119050791	119053319
Foxp2	1121133333	0.00309508	0.733	6	15198184	15330661
St7	1121133333	0.00309508	0.733	6	17871223	17874681
Wnt2	1121133333	0.00309508	0.733	6	17975194	17996256
Asz1	1121133333	0.00309508	0.733	6	17975194	17996256
Cttnbp2	1121133333	0.00309508	0.733	6	18307218	18310276
Npc1	1121133333	0.00309508	0.733	18	12371540	12376136
Xkr7	1111123332	0.00312419	0.732	2	152886158	152886359
Gm1006	1111123232	0.00314025	0.732	2	153762116	153762327
Cbfa2t2	1111123232	0.00314025	0.732	2	154345292	154400075
Necab3	1111123232	0.00314025	0.732	2	154345292	154400075
1700003F12Rik	1111123232	0.00314025	0.732	2	154345292	154400075
E2f1	1111123232	0.00314025	0.732	2	154345292	154400075
1700007I08Rik	1111123232	0.00314025	0.732	2	154345292	154400075
RP23-344D2.1	1111123232	0.00314025	0.732	4	118739601	118741546
Olfr1519	1121123333	0.00340685	0.726	4	118611890	118612156
Oc90	1121122233	0.00345073	0.725	15	65726600	65727201
Adrbk2	1122234435	0.00345175	0.874	5	113453853	113471505
Dock7	11212?3334	0.00346763	0.860	4	98795347	98795610
Cntnap5a	1122234335	0.00365186	0.871	1	117807862	117933435

Myo18b	1122234335	0.00365186	0.871	5	113215748	113259439
Crybb3	1122234335	0.00365186	0.871	5	113477083	113504120
Crybb2	1122234335	0.00365186	0.871	5	113477083	113504120
mmu-mir-469	1122234335	0.00365186	0.871	5	113730431	113770937
Zfp536	1112334455	0.00366387	0.871	7	38078538	38164412
Nsmce2	1112334455	0.00366387	0.871	15	59362502	59412304
Zer1	1121133444	0.00369759	0.802	2	29740726	30039608
Wdr34	1121133444	0.00369759	0.802	2	29740726	30039608
Odf2	1121133444	0.00369759	0.802	2	29740726	30039608
Cercam	1121133444	0.00369759	0.802	2	29740726	30039608
Pkn3	1121133444	0.00369759	0.802	2	29740726	30039608
Tbc1d13	1121133444	0.00369759	0.802	2	29740726	30039608
Spna2	1121133444	0.00369759	0.802	2	29740726	30039608
D2Wsu81e	1121133444	0.00369759	0.802	2	29740726	30039608
Ccbl1	1121133444	0.00369759	0.802	2	29740726	30039608
Skint8	1121133444	0.00369759	0.802	4	111595200	111600716
Cramp1l	1111122343	0.00371512	0.802	17	25146057	25149181
Tmem204	1111122343	0.00371512	0.802	17	25209349	25220678
Ift140	1111122343	0.00371512	0.802	17	25209349	25220678
Cacna1h	1111122343	0.00371512	0.802	17	25546700	25565846
RP23-144K18.3	1122233435	0.00377664	0.869	4	10738311	10772033
Tmem211	1122233435	0.00377664	0.869	5	113601494	113683319
2900026A02Rik	1122233435	0.00377664	0.869	5	113601494	113683319
Isx	1111123433	0.00380021	0.800	8	77383988	77395274
Nlrp1b	1111123433	0.00380021	0.800	11	70929264	70966128
Sipa1l1	1122222333	0.00386593	0.716	12	83240692	83390821
Dao	1122234544	0.00394876	0.867	5	114417953	114468317
4933412E24Rik	1122334444	0.00396374	0.798	15	59829826	59882931
Ppp1r12a	1111122345	0.0042216	0.863	10	107396208	107613134
Ggnbp1	1111122345	0.0042216	0.863	17	27060488	27138342
Kifc1	1111122345	0.0042216	0.863	17	27060488	27138342
Phf1	1111122345	0.0042216	0.863	17	27060488	27138342
Ttc39c	1121134344	0.00425444	0.793	18	12654103	13144565
Cabyr	1121134344	0.00425444	0.793	18	12654103	13144565
Impact	1121134344	0.00425444	0.793	18	12654103	13144565

Osbpl1a	1121134344	0.00425444	0.793	18	12654103	13144565
Gm5087	1112232344	0.00429667	0.792	14	13871786	14081769
Synpr	1112232344	0.00429667	0.792	14	14083145	14182841
Sntn	1112232344	0.00429667	0.792	14	14514194	14624371
Lrrc3b	1112232344	0.00429667	0.792	14	16265728	16350799
9330158H04Rik	1121133345	0.00433273	0.862	6	36172393	36266896
Cadps	1223345455	0.00450598	0.859	14	13453264	13667578
Elf2	1112134444	0.0046087	0.787	3	51066717	51486837
Naa15	1112134444	0.0046087	0.787	3	51066717	51486837
Setd7	1112134444	0.0046087	0.787	3	51066717	51486837
Mgst2	1112134444	0.0046087	0.787	3	51066717	51486837
4930583H14Rik	1112134444	0.0046087	0.787	3	51066717	51486837
Ndufc1	1112134444	0.0046087	0.787	3	51066717	51486837
Ppp2r5c	1122222233	0.00467598	0.701	12	111812821	111813857
Dync1h1	1122222233	0.00467598	0.701	12	111829780	111847399
1700001K19Rik	1122222233	0.00467598	0.701	12	111905373	111906635
Slc27a4	1121133455	0.0048164	0.856	2	29514527	30039608
Trub2	1121133455	0.0048164	0.856	2	29514527	30039608
Rapgef1	1121133455	0.0048164	0.856	2	29514527	30039608
2600006K01Rik	1121133455	0.0048164	0.856	2	29514527	30039608
Urm1	1121133455	0.0048164	0.856	2	29514527	30039608
RP23-304D11.2	1121133455	0.0048164	0.856	2	29514527	30039608
RP23-304D11.3	1121133455	0.0048164	0.856	2	29514527	30039608
Coq4	1121133455	0.0048164	0.856	2	29514527	30039608
Rnf220	1121122333	0.0048489	0.698	4	117100819	117106069
Eri3	1121122333	0.0048489	0.698	4	117195348	117220310
Dmap1	1121122333	0.0048489	0.698	4	117346272	117359179
Klf17	1121122333	0.0048489	0.698	4	117423914	117433672
Slc6a9	1121122333	0.0048489	0.698	4	117497850	117501391
Tac1	1222344445	0.0049434	0.854	6	6667035	7507772
Kcng3	1112222344	0.00512863	0.780	17	83962245	83995649
Fat4	1122334445	0.00513441	0.852	3	38866203	38895151
Sulf1	1112122222	0.00518814	0.574	1	12766674	12767134
Tnr	1112122222	0.00518814	0.574	1	161716525	161716734
Fam73b	1111222222	0.00518814	0.574	2	30225146	30262329

Dolpp1	1111222222	0.00518814	0.574	2	30225146	30262329
Crat	1111222222	0.00518814	0.574	2	30225146	30262329
Bpil3	1111222222	0.00518814	0.574	2	153724842	153725351
Zfp341	1111222222	0.00518814	0.574	2	154470643	154471163
Maml3	1112122222	0.00518814	0.574	3	51580013	51584124
Elavl2	1111222222	0.00518814	0.574	4	91034239	91034975
Asns	1111222222	0.00518814	0.574	6	7511307	7627087
Alox12b	1111222222	0.00518814	0.574	11	68985270	68985990
RP23-431C5.1	1112122222	0.00518814	0.574	12	25497846	25498913
SNORA42	1111222222	0.00518814	0.574	15	61187452	61192990
Cd96	1112122222	0.00518814	0.574	16	46089897	46090033
Epha6	1112122222	0.00518814	0.574	16	59693332	59695143
Kcnip2	1112122222	0.00518814	0.574	19	45857240	45867870
Mgea5	1112122222	0.00518814	0.574	19	45857240	45867870
9130011E15Rik	1112122222	0.00518814	0.574	19	45986713	45990803
4930427A07Rik	1122223455	0.0052641	0.850	12	114398030	114398174
Spen	1121222233	0.00528213	0.691	4	141034598	141045605
Stxbp5	1121222233	0.00528213	0.691	10	9422325	9482035
9130004J05Rik	1121222233	0.00528213	0.691	15	64093207	64324367
Adcy8	1121222233	0.00528213	0.691	15	64327328	64741421
Efr3a	1121222233	0.00528213	0.691	15	65429452	65688865
U2	1121222233	0.00528213	0.691	15	65429452	65688865
Hhla1	1121222233	0.00528213	0.691	15	65727093	65761601
Tmem71	1121222233	0.00528213	0.691	15	66200821	66439499
Lrrc6	1121222233	0.00528213	0.691	15	66200821	66439499
Phf20l1	1121222233	0.00528213	0.691	15	66200821	66439499
Wisp1	1121222233	0.00528213	0.691	15	66580568	66717190
Tg	1121222233	0.00528213	0.691	15	66580568	66717190
St3gal1	1121222233	0.00528213	0.691	15	66717345	66988042
Ndrg1	1121222233	0.00528213	0.691	15	66717345	66988042
Ptges	1111223444	0.0053773	0.776	2	30225146	30746663
Asb6	1111223444	0.0053773	0.776	2	30225146	30746663
Ppp2r4	1111223444	0.0053773	0.776	2	30225146	30746663
Cstad	1111223444	0.0053773	0.776	2	30225146	30746663
Mettl11a	1111223444	0.0053773	0.776	2	30225146	30746663

BC048507	1111223444	0.0053773	0.776	13	67951703	67981047
Gm10037	1111223444	0.0053773	0.776	13	67951703	67981047
Arhgap21	11111?1222	0.0054089	0.621	2	20773940	20777816
Cacna1b	11111?1222	0.0054089	0.621	2	24606422	24607480
Cdh7	1111233445	0.00555674	0.847	1	111883609	111957967
Prkacb	1111233445	0.00555674	0.847	3	146412174	146731165
Ttll7	1111233445	0.00555674	0.847	3	146412174	146731165
Greb1	1112133445	0.00555674	0.847	12	16690496	16694686
Mapkapk5	1122134445	0.00560359	0.847	5	121979182	122019160
Aldh2	1122134445	0.00560359	0.847	5	121979182	122019160
Tex22	1122134445	0.00560359	0.847	12	114289582	114386979
Crip2	1122134445	0.00560359	0.847	12	114289582	114386979
Mta1	1122134445	0.00560359	0.847	12	114289582	114386979
Pacs2	1122134445	0.00560359	0.847	12	114289582	114386979
Tmem59	1121234345	0.00561464	0.846	4	106708604	106956037
Lrrc42	1121234345	0.00561464	0.846	4	106708604	106956037
Cdcp2	1121234345	0.00561464	0.846	4	106708604	106956037
Ssbp3	1121234345	0.00561464	0.846	4	106708604	106956037
2210012G02Rik	1121234345	0.00561464	0.846	4	106708604	106956037
Cyb5rl	1121234345	0.00561464	0.846	4	106708604	106956037
Mrpl37	1121234345	0.00561464	0.846	4	106708604	106956037
Ldlrad1	1121234345	0.00561464	0.846	4	106708604	106956037
Hspb11	1121234345	0.00561464	0.846	4	106708604	106956037
Hyi	1111123434	0.0058351	0.770	4	118021719	118024235
Alox12	1111223433	0.00591521	0.769	11	70060711	70138253
Alox12e	1111223433	0.00591521	0.769	11	70060711	70138253
Vmo1	1111223433	0.00591521	0.769	11	70320207	70338646
Psmb6	1111223433	0.00591521	0.769	11	70320207	70338646
Gltpd2	1111223433	0.00591521	0.769	11	70320207	70338646
Tm4sf5	1111223433	0.00591521	0.769	11	70320207	70338646
Kcnq3	1121333344	0.00592054	0.769	15	65833678	65994873
Fzd8	1121333344	0.00592054	0.769	18	9202072	9254282
Cetn1	1121333344	0.00592054	0.769	18	9486712	9660218
Rock1	1121333344	0.00592054	0.769	18	10011093	10387047
Usp14	1121333344	0.00592054	0.769	18	10011093	10387047

Mib1	1121333344	0.00592054	0.769	18	10638053	10796942
Abhd3	1121333344	0.00592054	0.769	18	10638053	10796942
RP23-359C15.3	1111112333	0.00598319	0.680	2	180542740	180544344
Vstm2l	1121134444	0.00603326	0.767	2	157747030	157813297
Tgm2	1121134444	0.00603326	0.767	2	157905118	157963799
Rprd1b	1121134444	0.00603326	0.767	2	157905118	157963799
Mpl	1121134444	0.00603326	0.767	4	118118243	118121302
Olfr1342	1121134444	0.00603326	0.767	4	118362630	118365343
Lrrc8a	1232244555	0.006085	0.841	2	29740726	30112946
U46068	1111121222	0.00614512	0.558	2	153998285	154040353
2310021H06Rik	1111121222	0.00614512	0.558	2	153998285	154040353
BC018465	1111121222	0.00614512	0.558	2	154046880	154048069
5430413K10Rik	1111121222	0.00614512	0.558	2	154073961	154086344
Fstl5	1111121222	0.00614512	0.558	3	75870702	75920263
Ipp	1111121222	0.00614512	0.558	4	116211268	116212755
Gpbp1l1	1111121222	0.00614512	0.558	4	116231704	116251117
Ccdc17	1111121222	0.00614512	0.558	4	116265516	116270607
Nasp	1111121222	0.00614512	0.558	4	116275454	116278500
Rhbdf1	1111121222	0.00614512	0.558	11	32108789	32113657
Snrnp25	1111121222	0.00614512	0.558	11	32108789	32113657
Mare	1111121222	0.00614512	0.558	11	32129681	32130342
Mpg	1111121222	0.00614512	0.558	11	32129681	32130342
Hba-x	1111121222	0.00614512	0.558	11	32169637	32172922
F830116E18Rik	1111121222	0.00614512	0.558	11	32184814	32188470
Hba-a1	1111121222	0.00614512	0.558	11	32184814	32188470
Camk2d	1111222223	0.00628121	0.675	3	126302843	126318250
Lama1	1111234445	0.00628674	0.839	17	68103275	68125379
Dmrtc1b	1112134445	0.00628674	0.839	X	99907253	99983108
1700028P14Rik	1122123233	0.00639272	0.674	19	23628736	23629158
Kif1c	1111112322	0.00640261	0.674	11	70517661	70566546
Grik3	11111?2122	0.0064085	0.604	4	125213931	125215644
Stap1	11111?2122	0.0064085	0.604	5	86497901	86502726
Adamts3	11111?2122	0.0064085	0.604	5	90159008	90159418
4930426L09Rik	1111111222	0.00666523	0.549	2	18553602	18933107
Pip4k2a	1111111222	0.00666523	0.549	2	18553602	18933107

RP23-463M17.3	1111111222	0.00666523	0.549	2	18553602	18933107
BC061194	1111111222	0.00666523	0.549	2	18553602	18933107
Armc3	1111111222	0.00666523	0.549	2	18950940	19197011
1810010K12Rik	1111111222	0.00666523	0.549	2	19237668	19571981
4921504E06Rik	1111111222	0.00666523	0.549	2	19237668	19571981
Otud1	1111111222	0.00666523	0.549	2	19237668	19571981
Msrb2	1111111222	0.00666523	0.549	2	19237668	19571981
Ptf1a	1111111222	0.00666523	0.549	2	19237668	19571981
Etl4	1111111222	0.00666523	0.549	2	19707073	20035736
RP23-177L19.1	1111111222	0.00666523	0.549	2	20882588	20924512
Thnsl1	1111111222	0.00666523	0.549	2	21102279	21156468
Enkur	1111111222	0.00666523	0.549	2	21102279	21156468
Gpr158	1111111222	0.00666523	0.549	2	21317760	21353918
Myo3a	1111111222	0.00666523	0.549	2	22101696	22401254
Gad2	1111111222	0.00666523	0.549	2	22507867	22522943
Pax8	1111111222	0.00666523	0.549	2	24281480	24284716
Ehmt1	1111111222	0.00666523	0.549	2	24631684	24641898
Zmynd19	1111111222	0.00666523	0.549	2	24790699	24824146
Wdr85	1111111222	0.00666523	0.549	2	24790699	24824146
Arrdc1	1111111222	0.00666523	0.549	2	24790699	24824146
Mrpl41	1111111222	0.00666523	0.549	2	24828326	24829703
Noxa1	1111111222	0.00666523	0.549	2	24852496	24964440
Pnpla7	1111111222	0.00666523	0.549	2	24852496	24964440
2010317E24Rik	1111111222	0.00666523	0.549	2	24965733	25516626
Ssna1	1111111222	0.00666523	0.549	2	24965733	25516626
Lcn8	1111111222	0.00666523	0.549	2	24965733	25516626
C8g	1111111222	0.00666523	0.549	2	24965733	25516626
Phpt1	1111111222	0.00666523	0.549	2	24965733	25516626
Fcna	1111111222	0.00666523	0.549	2	24965733	25516626
Lcn5	1111111222	0.00666523	0.549	2	24965733	25516626
Fut7	1111111222	0.00666523	0.549	2	24965733	25516626
Abca2	1111111222	0.00666523	0.549	2	24965733	25516626
Dpp7	1111111222	0.00666523	0.549	2	24965733	25516626
BC029214	1111111222	0.00666523	0.549	2	24965733	25516626
RP23-464C2.12	1111111222	0.00666523	0.549	2	24965733	25516626

Lcn12	1111111222	0.00666523	0.549	2	24965733	25516626
Anapc2	1111111222	0.00666523	0.549	2	24965733	25516626
Gm996	1111111222	0.00666523	0.549	2	24965733	25516626
Mamdc4	1111111222	0.00666523	0.549	2	24965733	25516626
Npdc1	1111111222	0.00666523	0.549	2	24965733	25516626
Clic3	1111111222	0.00666523	0.549	2	24965733	25516626
4921530D09Rik	1111111222	0.00666523	0.549	2	24965733	25516626
Uap1l1	1111111222	0.00666523	0.549	2	24965733	25516626
Fbxw5	1111111222	0.00666523	0.549	2	24965733	25516626
Traf2	1111111222	0.00666523	0.549	2	24965733	25516626
C430004E15Rik	1111111222	0.00666523	0.549	2	24965733	25516626
Tmem210	1111111222	0.00666523	0.549	2	24965733	25516626
Edf1	1111111222	0.00666523	0.549	2	24965733	25516626
Cobra1	1111111222	0.00666523	0.549	2	24965733	25516626
Tmem141	1111111222	0.00666523	0.549	2	24965733	25516626
Entpd2	1111111222	0.00666523	0.549	2	24965733	25516626
Ptgds	1111111222	0.00666523	0.549	2	24965733	25516626
B230208H17Rik	1111111222	0.00666523	0.549	2	24965733	25516626
Slc34a3	1111111222	0.00666523	0.549	2	24965733	25516626
Kcnt1	1111111222	0.00666523	0.549	2	25632756	25964135
Camsap1	1111111222	0.00666523	0.549	2	25632756	25964135
Ubac1	1111111222	0.00666523	0.549	2	25632756	25964135
Glt6d1	1111111222	0.00666523	0.549	2	25632756	25964135
Lcn11	1111111222	0.00666523	0.549	2	25632756	25964135
Nacc2	1111111222	0.00666523	0.549	2	25632756	25964135
Sec16a	1111111222	0.00666523	0.549	2	26290068	26295494
Notch1	1111111222	0.00666523	0.549	2	26328937	26331021
Egfl7	1111111222	0.00666523	0.549	2	26424147	26498248
Tm4sf1	1111111222	0.00666523	0.549	3	56956383	57081709
Herc2	1112132244	0.00667276	0.759	7	63414937	63428367
Lrrc9	1121123334	0.00675163	0.758	12	73527997	73557430
Esyt2	11112?3444	0.00688966	0.816	12	117608495	117609999
Rcor1	1122232333	0.00694365	0.666	12	112324824	112326940
Cdc42bpb	1122232333	0.00694365	0.666	12	112563569	112567575
H13	1111233233	0.00705751	0.665	2	152476803	152547905

Slc16a11	1111233233	0.00705751	0.665	11	70012102	70018228
Utp15	1211133445	0.00707499	0.831	13	98968763	99012780
Rgnef	1211133445	0.00707499	0.831	13	98968763	99012780
Foxd1	1211133445	0.00707499	0.831	13	99068218	99343132
Btf3	1211133445	0.00707499	0.831	13	99068218	99343132
RP24-76E2.3	1211133445	0.00707499	0.831	13	99068218	99343132
Camk1d	1111122122	0.00708069	0.543	2	5595080	5597724
Nudt5	1111122122	0.00708069	0.543	2	5791247	5798167
Sec61a2	1111122122	0.00708069	0.543	2	5791247	5798167
Dhtkd1	1111122122	0.00708069	0.543	2	5820724	5833346
Upf2	1111122122	0.00708069	0.543	2	5889646	5890785
5430407P10Rik	1111122122	0.00708069	0.543	2	6003272	6043263
Plekhf2	1111122122	0.00708069	0.543	4	10914718	10915892
Pftk1	1111122122	0.00708069	0.543	5	5150731	5157359
Npffr2	1111122122	0.00708069	0.543	5	89949876	89950992
Cacng7	1111122122	0.00708069	0.543	7	3301245	3401148
Prkcc	1111122122	0.00708069	0.543	7	3301245	3401148
Cacng8	1111122122	0.00708069	0.543	7	3301245	3401148
Tfpt	1111122122	0.00708069	0.543	7	3558751	3621386
Leng1	1111122122	0.00708069	0.543	7	3558751	3621386
Tmc4	1111122122	0.00708069	0.543	7	3558751	3621386
Ndufa3	1111122122	0.00708069	0.543	7	3558751	3621386
Oscar	1111122122	0.00708069	0.543	7	3558751	3621386
Prpf31	1111122122	0.00708069	0.543	7	3558751	3621386
Cnot3	1111122122	0.00708069	0.543	7	3558751	3621386
Large	1111122122	0.00708069	0.543	8	75510233	75521308
Usp32	1112222334	0.00725179	0.753	11	84893581	85029141
Appbp2	1112222334	0.00725179	0.753	11	84893581	85029141
1700125H20Rik	1112222334	0.00725179	0.753	11	84893581	85029141
Fndc3c1	1111123445	0.00728003	0.829	X	103103383	103896597
Tlr13	1111123445	0.00728003	0.829	X	103103383	103896597
Gm5127	1111123445	0.00728003	0.829	X	103103383	103896597
Magt1	1111123445	0.00728003	0.829	X	103103383	103896597
Cysltr1	1111123445	0.00728003	0.829	X	103103383	103896597
Pgk1	1111123445	0.00728003	0.829	X	103103383	103896597

Fnd3c2	1111123445	0.00728003	0.829	X	103103383	103896597
Taf9b	1111123445	0.00728003	0.829	X	103103383	103896597
Atp7a	1111123445	0.00728003	0.829	X	103103383	103896597
Atrx	1111123445	0.00728003	0.829	X	103103383	103896597
Tomm40l	1111112122	0.00772715	0.534	1	173148230	173148563
Nr1i3	1111112122	0.00772715	0.534	1	173148230	173148563
Rhbdl2	1111112122	0.00772715	0.534	4	123478035	123479365
Cox18	1111112122	0.00772715	0.534	5	90612705	90640957
Ankrd17	1111112122	0.00772715	0.534	5	90653839	90723738
Rassf6	1111112122	0.00772715	0.534	5	90993668	91025174
Gatad2a	1111112122	0.00772715	0.534	8	72487920	72489030
Mcm5	1111112122	0.00772715	0.534	8	77627189	77632120
Hmox1	1111112122	0.00772715	0.534	8	77627189	77632120
Myh2	1111112122	0.00772715	0.534	11	66991037	66992016
Myh1	1111112122	0.00772715	0.534	11	67017841	67018049
Ipo11	1111112122	0.00772715	0.534	13	107633542	107635808
A2bp1	1111112122	0.00772715	0.534	16	6807621	6808581
Alk	1111112122	0.00772715	0.534	17	72759862	72760304
Kdm4a	1111112232	0.0077959	0.655	4	117828727	117830080
Rpap2	1111112232	0.0077959	0.655	5	108082305	108084153
Ceacam12	11121?2222	0.00789331	0.582	7	18646971	18647751
6030446N20Rik	11112?2222	0.00789331	0.582	18	12155178	12161166
Cdh11	1122334355	0.00789568	0.824	8	105129880	105191785
Pcnx	1122222344	0.00790515	0.745	12	82932844	83390821
Pmm2	1122222344	0.00790515	0.745	16	8103510	8775642
Abat	1122222344	0.00790515	0.745	16	8103510	8775642
Tmem186	1122222344	0.00790515	0.745	16	8103510	8775642
BC024814	1122222344	0.00790515	0.745	16	8103510	8775642
Carhsp1	1122222344	0.00790515	0.745	16	8103510	8775642
Usp7	1122222344	0.00790515	0.745	16	8103510	8775642
Tmem114	1122222344	0.00790515	0.745	16	8103510	8775642
Manbal	1121133445	0.00799347	0.823	2	157207411	157209035
Phldb2	1112?22222	0.00810463	0.579	16	45891073	45892711
Guca2b	1111233434	0.00813309	0.743	4	119328150	119335830
St3gal3	1111112323	0.00841103	0.648	4	117731450	117732145

Ficd	1122213333	0.00844363	0.648	5	114157727	114185633
E430025E21Rik	1112113333	0.00853732	0.647	15	59204429	59256904
Cog1	1123324445	0.00859045	0.818	11	113428261	113594781
D11Wsu99e	1123324445	0.00859045	0.818	11	113428261	113594781
Slc39a11	1123324445	0.00859045	0.818	11	113428261	113594781
D11Wsu47e	1123324445	0.00859045	0.818	11	113428261	113594781
Cdc42ep4	1123324445	0.00859045	0.818	11	113428261	113594781
Cpsf4l	1123324445	0.00859045	0.818	11	113428261	113594781
Bst2	1111234334	0.0086193	0.738	8	74022448	74058117
Gtpbp3	1111234334	0.0086193	0.738	8	74022448	74058117
Plvap	1111234334	0.0086193	0.738	8	74022448	74058117
Blcap	1121134445	0.00888948	0.815	2	157340279	157436914
RP23-91I20.2	1121134445	0.00888948	0.815	2	157708240	157722910
Cylc1	1121134445	0.00888948	0.815	X	107903200	108572184
Pou3f4	1121134445	0.00888948	0.815	X	107903200	108572184
Rps6ka6	1121134445	0.00888948	0.815	X	107903200	108572184
4930458L03Rik	1122223244	0.00889339	0.735	13	64986858	65062803
Cntnap3	1122223244	0.00889339	0.735	13	64986858	65062803
Nid2	1222223433	0.00897814	0.734	14	20566265	20574630
Fbxl13	1123333444	0.00905498	0.734	5	21104281	21104834
Trpm8	1121234333	0.00914101	0.733	1	90193764	90250341
Magi1	1122223435	0.00921517	0.812	6	94217757	94262542
Sox18	?111111222	0.00924842	0.564	2	181398907	181406366
A730069N07Rik	1111123242	0.00955535	0.729	8	37916419	37999021
Nlgn2	1121233433	0.00958883	0.729	11	69634356	69668388
Tnk1	1121233433	0.00958883	0.729	11	69634356	69668388
Plscr3	1121233433	0.00958883	0.729	11	69634356	69668388
Spem1	1121233433	0.00958883	0.729	11	69634356	69668388
Snapc4	1121333444	0.00974615	0.727	2	26025938	26338462
Card9	1121333444	0.00974615	0.727	2	26025938	26338462
C030048H21Rik	1121333444	0.00974615	0.727	2	26025938	26338462
Dnlz	1121333444	0.00974615	0.727	2	26025938	26338462
4932418E24Rik	1121333444	0.00974615	0.727	2	26025938	26338462
Gpsm1	1121333444	0.00974615	0.727	2	26025938	26338462
Qsox2	1121333444	0.00974615	0.727	2	26025938	26338462

Igh-3	1111123422	0.0097528	0.727	12	114541552	114542853
Snta1	1111234333	0.00976626	0.727	2	154177877	154209455
Il1a	1111122342	0.00985953	0.726	2	129123122	129125693
Ckap2l	1111122342	0.00985953	0.726	2	129123122	129125693
Ifi203	1211134334	0.00994663	0.725	1	175791342	175791801

Supplementary Table 2. The list of differentially expressed genes in the lungs from TGF-β Tg mice on fibrogenic strains (C57BL6/J, AKR/J, A/J) with more than 2 fold changes compared to their WT controls.

Gene Symbol	Regulation	Average FC*	Chromosome
Xist	down	7.1	X
Cyp1a1	down	6.8	9
Eif2s3y	up	4.8	Y
Ddx3y	up	4	Y
Sult1d1	down	3.9	5
Uty	up	3.8	Y
1810010H24Rik	down	3.4	11
Ntm	up	3.4	9
Rpl7a	up	3.3	2
Gsta3	down	3.2	1
Gm13646	up	3	13
Lrat	down	3	3
Cyp4b1	down	2.9	4
Scel	down	2.9	14
Ctsk	up	2.8	3
Nrcam	up	2.8	12
Pigr	down	2.8	1
Slc7a10	down	2.8	7
Tnip3	up	2.8	6
Lox	up	2.7	18
Ccnb1	up	2.6	13
Dbc1	up	2.6	4
Gria1	down	2.6	11
Hbb-b1	down	2.6	7
Kdm5d	up	2.6	Y
Mest	up	2.6	6
Mki67	up	2.6	7
Nrn1	down	2.6	13
Retn	down	2.6	8
Adamts2	up	2.5	11
Ccna2	up	2.5	3
Lamc2	up	2.5	1
Sfn	up	2.5	4
Sfrp1	up	2.5	8
Veph1	up	2.5	3
Adamtsl2	up	2.4	2
Capn6	up	2.4	X
Cdk1	up	2.4	10

Col12a1	up	2.4	9
Col1a1	up	2.4	11
Dclk1	up	2.4	3
Faim2	down	2.4	15
Gm3893	down	2.4	4
Susd2	up	2.4	10
Vcan	up	2.4	13
Akr1c14	down	2.3	13
Cpxm1	up	2.3	2
Cyp2b10	down	2.3	7
Frzb	up	2.3	2
Gm606	down	2.3	16
Igfbp6	down	2.3	15
Lama1	up	2.3	17
Mal	up	2.3	2
Myl7	down	2.3	11
Prkg2	down	2.3	5
Rgs4	up	2.3	1
Serpine2	up	2.3	1
Shisa4	up	2.3	1
Smpx	down	2.3	X
Adssl1	up	2.2	12
Ccnb2	up	2.2	9
Clec4n	up	2.2	6
Cnksr2	down	2.2	X
Cyp3a13	down	2.2	5
Fcrls	up	2.2	3
Fstl1	up	2.2	16
H2-Q6	down	2.2	17
Hba-a1	down	2.2	11
Hba-a2	down	2.2	11
Mmp14	up	2.2	14
Ms4a7	up	2.2	19
Top2a	up	2.2	11
Wisp1	up	2.2	15
Actc1	down	2.1	2
Aldh1a7	down	2.1	19
Bmp6	down	2.1	13
Ccdc80	up	2.1	16
Cdo1	down	2.1	18
Cldn10a	down	2.1	14

Cldn4	up	2.1	5
Col3a1	up	2.1	1
Ctsh	up	2.1	9
Cyp4f39	up	2.1	17
D0H4S114	up	2.1	18
E430029J22Rik	down	2.1	1
Ear1	down	2.1	14
Ect2	up	2.1	3
Fbn1	up	2.1	2
Gatm	up	2.1	2
Gstm1	down	2.1	3
Malt1	up	2.1	18
Mgp	up	2.1	6
Mmp19	up	2.1	10
Mpzl2	up	2.1	9
Ncr1	down	2.1	7
Nnat	up	2.1	2
Npr3	down	2.1	15
Nt5e	up	2.1	9
P2ry2	up	2.1	7
Pdgfrl	up	2.1	8
Plk1	up	2.1	7
Prc1	up	2.1	7
Selenbp1	down	2.1	3
Serpina3n	up	2.1	12
Serpinb10-ps	down	2.1	1
Serpine1	up	2.1	5
Socs3	up	2.1	11
Srsy	up	2.1	Y
Tinag	up	2.1	9
Zmat4	up	2.1	8
Adra1a	down	2	14
Cd8b1	down	2	6
Cep70	down	2	9
Chl1	up	2	6
Dgat2	down	2	7
Itgb3	up	2	11
Ltbp3	up	2	19
Lyve1	down	2	7
Mdk	up	2	2
Pgm5	up	2	19

Prnd	up	2	2
Serinc2	up	2	4
Serpina3c	down	2	12
Sertad4	up	2	1
Steap4	up	2	5
Tnni3	down	2	7
Wipf3	up	2	6

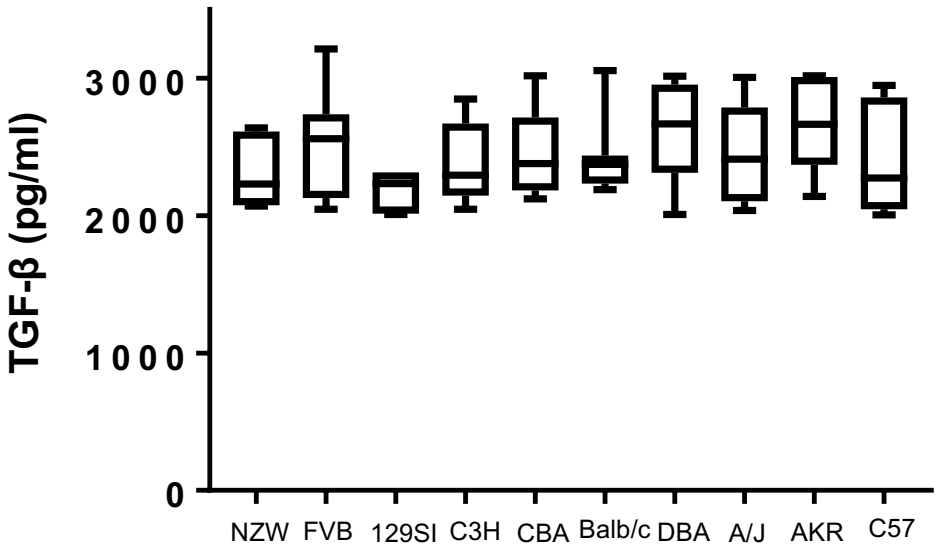
* Average fold changes (FC) has been calculated from the data from 3 fibrogenic strains of mice. In each strain, 3 TGF-β Tg mice and their WT controls were subjected to Affymetrix Gene 1.0 ST array analysis and fold changes were calculated from the expression levels of individual gene in TGF-β mice vs controls.

Supplementary Table 3. The list of the primer sequences used for qRT-PCR in this study.

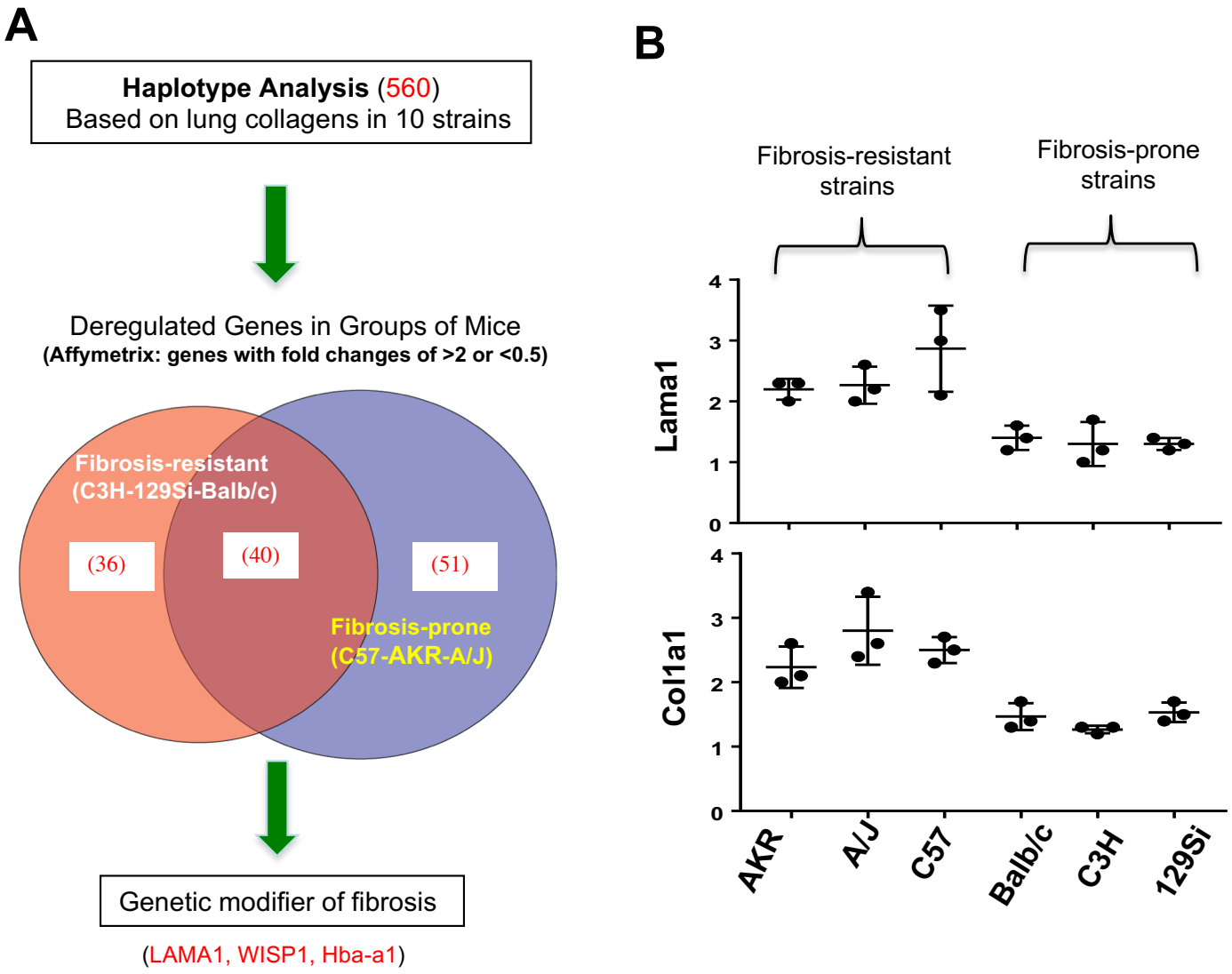
Gene Name	Forward Primer	Reverse Primer
Murine		
Lama1	caactgctcgcagaatacca,	gccactttccattggctaaa
Col1a1(Col1)	gagcggagagtactggatcg	gcttcttttccttggggttc
Col3a1(Col3)	gtccacgaggtgacaaaggt	gatgcccacttgttccatct
Fibronectin (Fbn)	gaaggtttgcaacccactgt	catcctcagggctcgagtag
CD206	atgccaagtgggaaaatctg	tgtagcagtggcctgcatag
YM-1	actttgatggcctcaacctg	aatgattcctgctcctgtgg
Arg2	ggatccagaaggtgatggaa	agagctgacagcaaccctgt
Cxcr1	ggagcccacttgattgaaga	cggtgtgtcaaaacctcctt
Ccl1	ggatgttgacagcaagagca	ggtgattttgaacccacgtt
CD163	atgtctctgaggctgacca	tgcacacgatctacccacat
CD204	ctggacaaactggtccacct	ctccccttctctccctttg
Fizz	cccttctcatctgcatctcc	cagtagcagtcatcccagca
INOS	accttggagttcacccagt	accactcgtacttgggatgc
IP10	ggtctgagtgggactcaagg	gtggcaatgatctcaacacg
ELS(Elastin)	gctgatcctcttgctcaacc	tccaaacgttcccagaagtc
Human		
LAMA1	gcagctctggagtacgttcc	cctttgccaaggtcaaacat
COL3A1(Col3)	aggaaatgatggtgctcctg	gttccccaggttttccattt
Fibronectin (FN)	cagtgggagacctcgagaag	gtccctcggaacatcagaaa

Supplementary Table 4. List of the antibodies used for immunoblot and immunohistochemistry in this study.

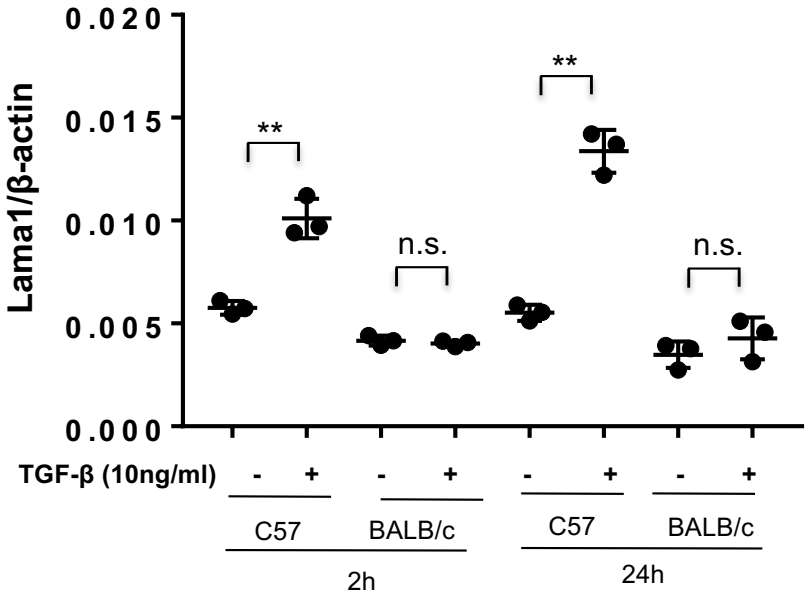
Protein Name	Company	Catalog number
Murine		
Lama1	R&D Systems, Inc	Mab4656
FSP-1	Abcam	Ab41532
CC10	Santa Cruz Biotech	Sc-365992
α–SMA	Abcam	Ab5694
Myosin	Abcam	Ab3481
CD68	Abcam	Ab955
Akt	Cell signaling	4685
pAkt	Cell signaling	4058
Smad2	Cell signaling	3103
pSMAD2	Cell signaling	18338
SMAD2/3	Cell signaling	5678
Human		
LAMA1	Abcam	Ab210954
FSP1	Abcam	Ab124805
CD68	Abcam	Ab955



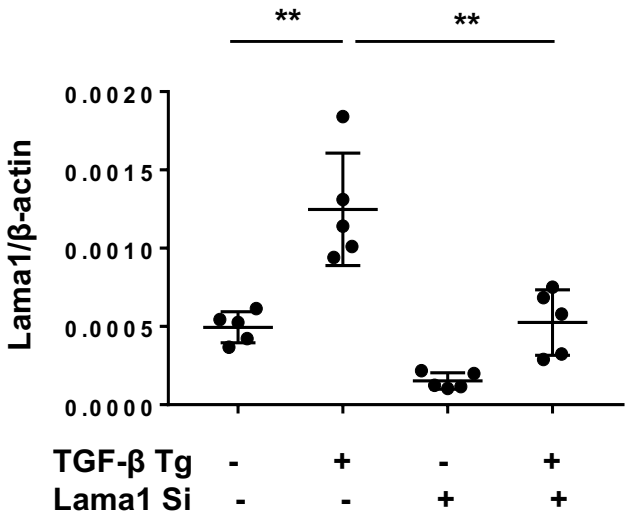
Supplemental Figure 1. TGF-β expression in TGF-β Tg mice on 10 different genetic background. After 2 weeks of doxycycline induction of transgene expression, the TGF-β levels in the BAL were assessed using ELISA evaluations. The values are the mean ± SEM. n=7 mice per strain



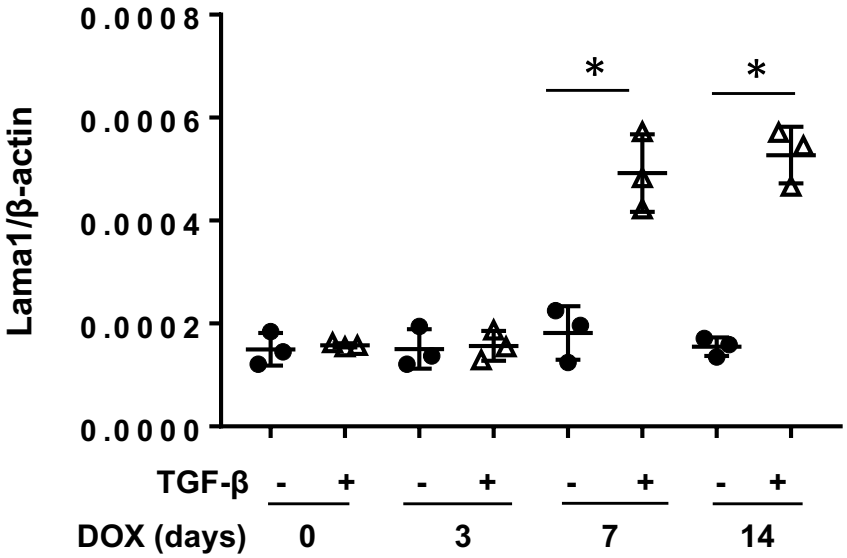
Supplemental Figure 2. Schematic illustration on the identification process of genetic modifiers associated with TGF-β-stimulated pulmonary fibrosis. (A) I*n silico* haplotype analysis was done based on the strain dependent TGF-β-stimulated collagen accumulation in the lung. This evaluation identified about 560 candidate genes. Then the candidate genes were further selected through mRNA profiling assay on the lungs from 3 fibrosis prone strains and 3 fibrosis resistant strains of TGF-β Tg mice, that resulted into small number of candidate genes that include Lama1, WISP1 and Hba-a1 as fibrogenic modifiers. (B) The mRNA expression of Lama1 and Col1a1 between 3 fibrosis prone and 3 fibrosis resistant strains of mice. The expression levels were expressed as fold changes in TGF-β Tg mice compared to WT controls for each strains. Similar pattern of expression was noted in other matrix proteins including Co31a1 and elastin.



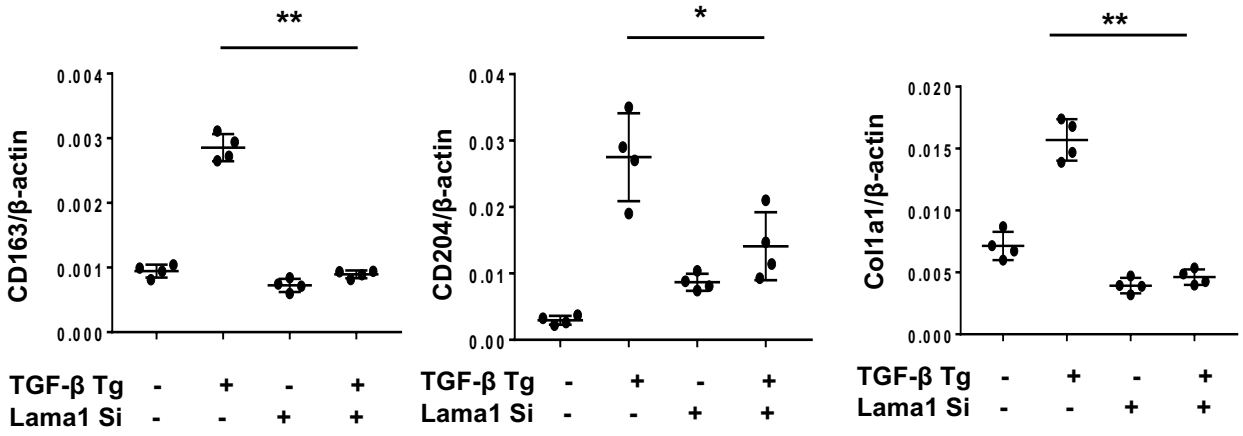
<u>Supplemental Figure 3</u>. **TGF-β1 regulation of Lama1 expression in the macrophages between C57 and Balb/c mice**. Alveolar macrophages isolated from C57 and Balb/c mice were treated with TGF-β1 for 2 or 24 hours then the levels of Lama1 mRNA were evaluated by qRT-PCR. The values represent the mean ± SEM of evaluations on 3 mice each group. **p<0.01, n.s., not significant



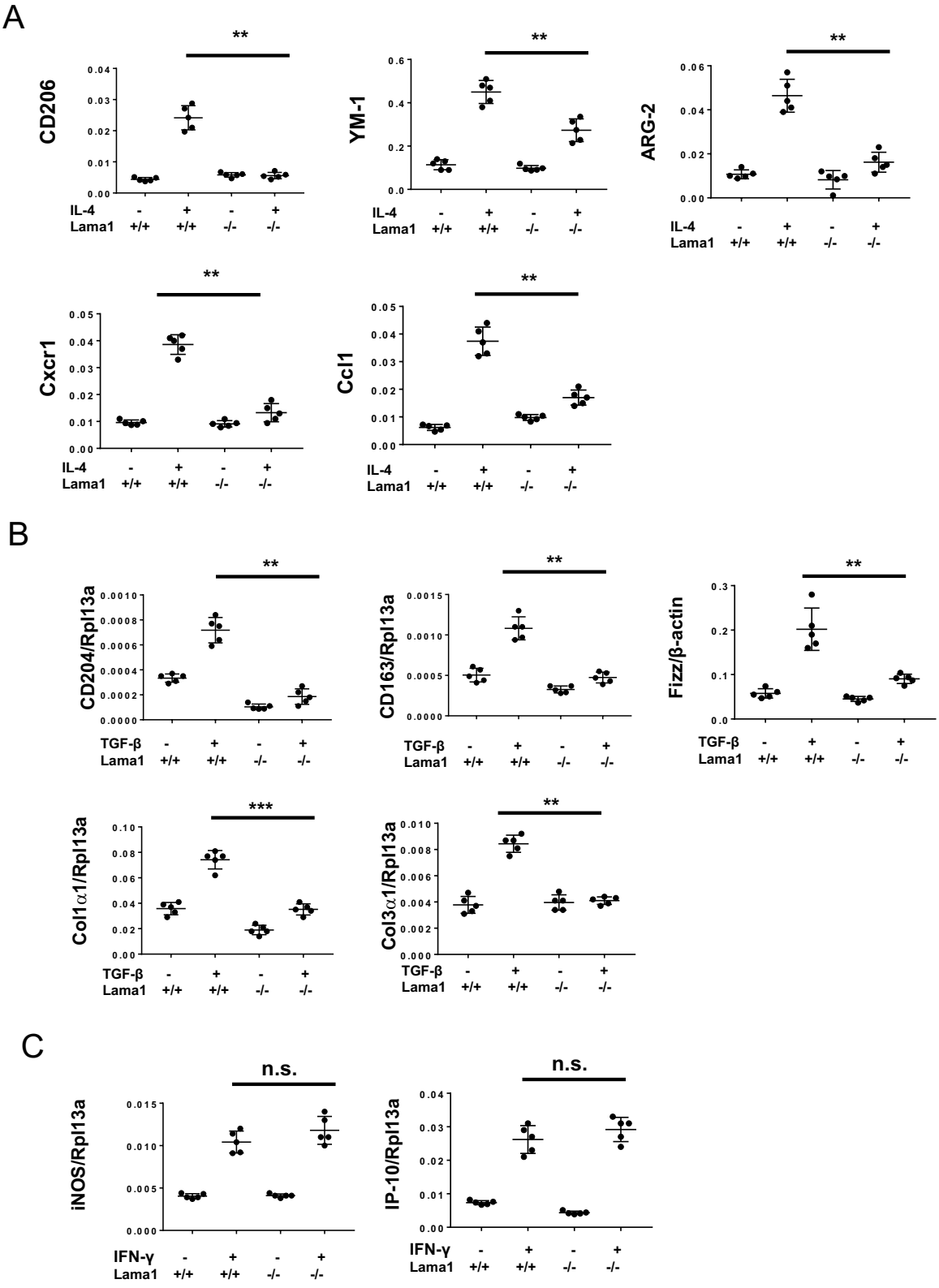
Supplemental Figure 4. ***In vivo*** **silencing efficacy of Lama1 siRNA treatment**. TGF-β transgenic (Tg) mice were treated with scrambled (-) or Lama1-specific siRNA (+) (i.n., 3nmole/mouse) then Lama1 expression in the whole lung lysates was evaluated by real-time qPCR. The values represent the mean ± SEM of evaluations in a minimum of 5 mice each group. **p<0.01.



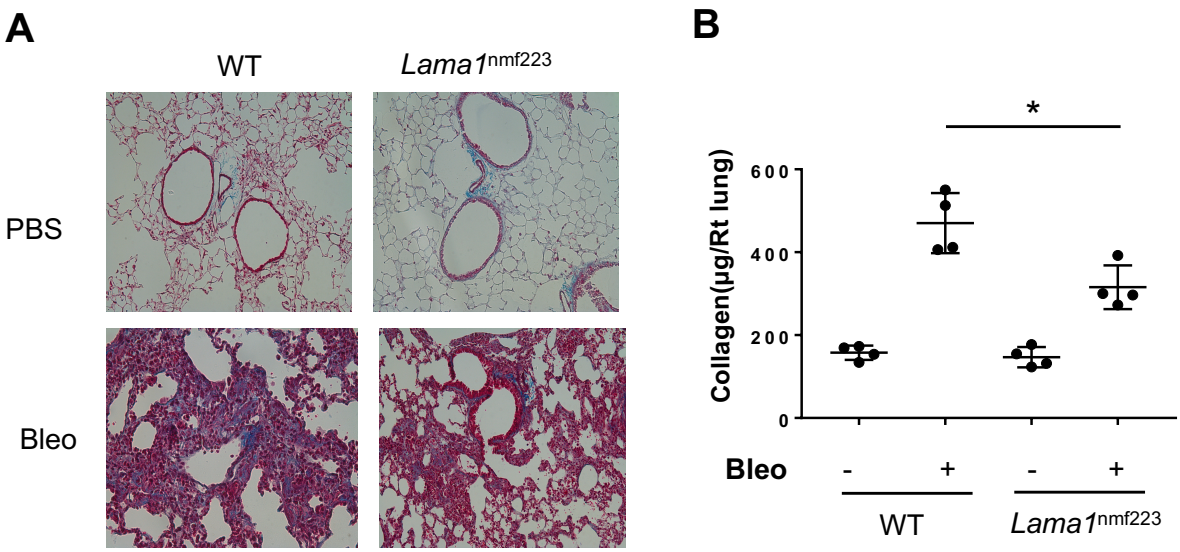
Supplemental Figure 5 . **Lama1 expression in the alveolar macrophages isolated from TGF-β transgenic mice**. After transgene induction by Dox water, WT and TGF-β Tg mice were sacrificed at indicated time points and alveolar macrophages were prepared from these mice. Lama1 expression in alveolar macrophages were evaluated by qRT-PCR. The values represent the mean ± SEM of evaluations in a minimum of 3 mice each group. *$p<0.05$.



Supplemental Figure 6. **TGF-β1-stimulated alveolar macrophage activation after *in vivo* siRNA silencing of Lama1**. 6-8 weeks old WT and TGF-β1 Tg mice were with and without Lama1 siRNA silencing, then the mice were sacrificed after 14 days of dox induction. Alveolar macrophages were prepared from these mice and fibrotic activation markers of macrophages were evaluated by qRT-PCR. The values represent the mean ± SEM of evaluations in a minimum of 4 mice each group. *p<0.05.

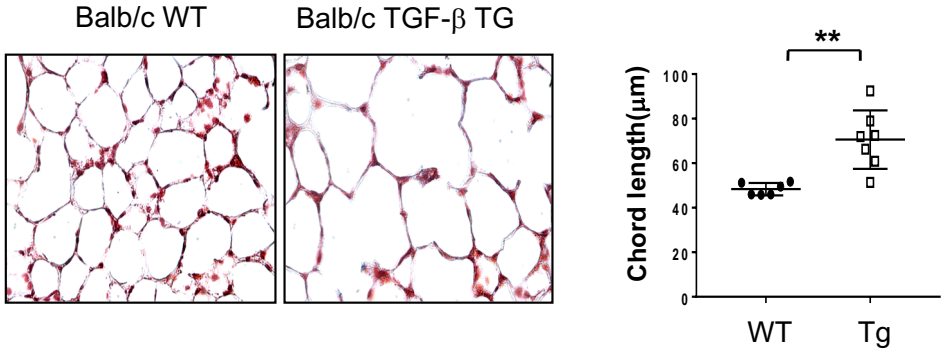


Supplemental Figure 7. **Role of Lama1 in macrophage activation**. Alveolar macrophages isolated from WT and Lama1 mutant mice (C57BL/6J-*Lama1*^{nmf223}) were subjected to real-time qRT-PCR to identify macrophage activation markers. **(A)** alternative activation of macrophages stimulated by IL-4. **(B)** fibrotic/reparative activation of macrophages stimulated by TGF-β. **(C)** classical activation of macrophages by IFN-γ stimulation. The values represent the mean ± SEM of evaluations in a minimum of 5 mice each group. **p<0.01, ***p<0.001. n.s., not significant.

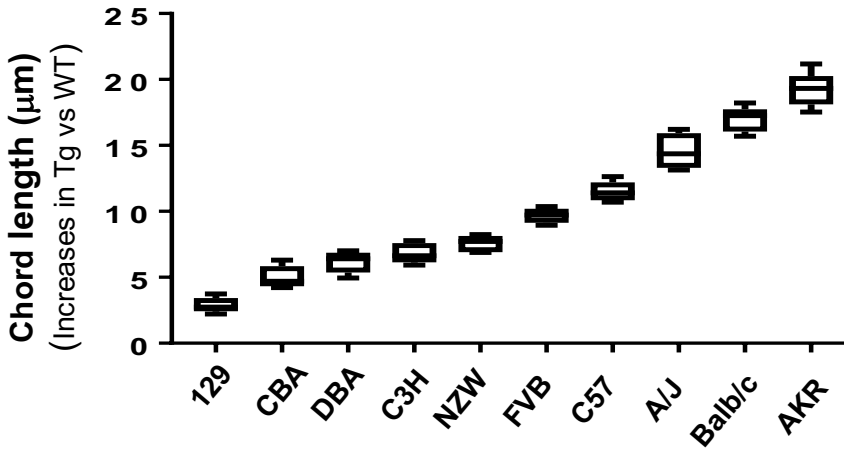


Supplemental Figure 8. Role of Lama1 in bleomycin-induced pulmonary fibrosis. 6-8 weeks old WT and Lama1 mutant mice (C57BL/6J-*Lama1*^{nmf223}) were challenged by bleomycin (1.25U/mouse) via intratracheal delivery, then the mice were evaluated at 2 weeks after bleomycin administration. **(A)** Mallory Trichrome Blue staining of the lungs from WT and Lama1 mutant mice **(B)** Sircol quantitation of collagen accumulation in the lungs from WT and Lama1 mutant mice. The values in panel B represent the mean ± SEM of evaluations in a minimum of 4 mice each group. *$p<0.05$.

A



B



C

Strain-dependent pulmonary phenotypes of TGF-β1 Tg mice.

Pulmonary Phenotypes	Strains
Fibrosis-Sensitive	AKR, A/J, DBA, C57
Fibrosis-Resistant	C3H, Balb/c, CBA,129Si
Emphysema-Sensitive	AKR, Balb/c, A/J, C57
Emphysema-Resistant	129Si, CBA, DBA, C3H
Fibrosis-Dominant	DBA, NZW
Emphysema-Dominant	Balb/c

Supplemental Figure 9. Strain-dependent regulation of TGF-β-stimulated emphysematous alveolar destruction. (A) Alveolar destruction in the lungs of Balb/c TGF-β Tg mice. Left panel, H&E stains of alveolar area of lungs, x20 magnificantion; right panel, chord length quantitation. (B) Alveolar changes measured by chord length quantitation in 10 strains of mice. (C) Summarized table on the strain dependent pulmonary phenotypes in 10 strains of mice.