

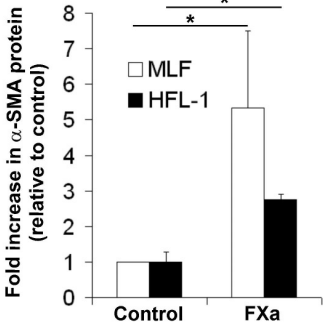
Supplement

Supplemental Figure 1

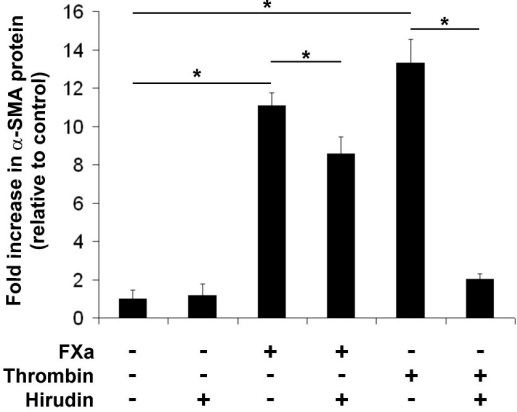
(A) The effect of FXa on α -SMA protein expression in two further fibroblast cell types, MLFs and HFL-1s, as analyzed by western blotting and quantified by densitometry. * $p < 0.001$, Student's t-test (two-tailed, two sample, equal variance). (B) Assessment of direct thrombin inhibition on α -SMA protein expression in pHALFs induced by treatment with FXa. Recombinant leech hirudin (rHir, 200nM) inhibited over 95% of α -SMA protein expression in response to thrombin (10nM) but only exerted a small (albeit significant) effect on FXa induced α -SMA protein expression. Hirudin did not affect baseline α -SMA protein expression. * $p < 0.0001$ (ANOVA). (C) FXa-induced TSP-1 mRNA expression in pHALFs as assessed by real time RT-PCR. * $p < 0.001$ (ANOVA). (D) Representative immunoblot showing FXa-induced time-dependent increase in TSP-1 versus ERK2 (loading control). (E) Densitometric analysis of TSP-1 western blot. * $p < 0.001$ (ANOVA).

Supplementary Figure 1

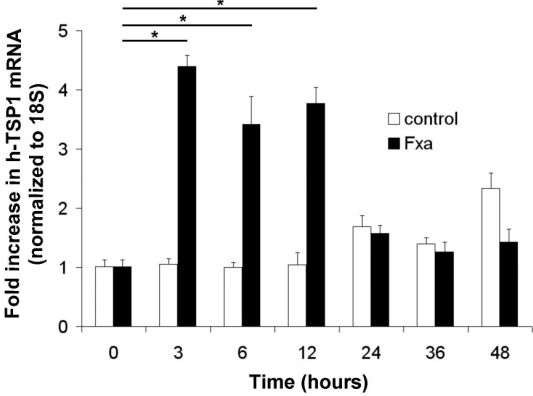
A



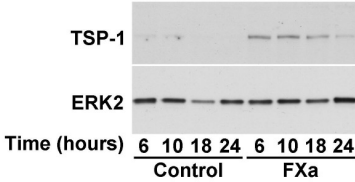
B



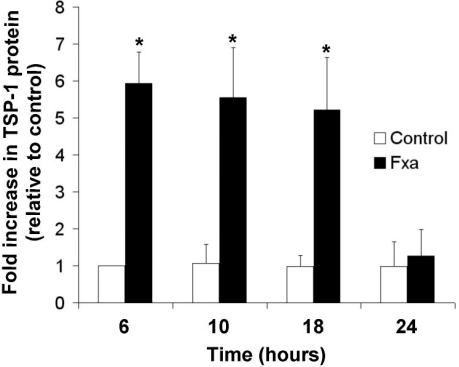
C



D



E



Gene Symbol	Affymetrix ID	Fold change following bleomycin (compared with saline-treated mice)
<i>UPREGULATED GENES</i>		
Mmp12	1449153_at	149.30
C3ar1	1419483_at	23.39
Gpnmb	1448303_at	17.93
Slc26a4	1419725_at	16.97
Clec4n	1419627_s_at	14.64
C1qc	1449401_at	13.47
C1qb	1417063_at	13.40
Trem2	1421792_s_at	11.02
Cd200r1	1422191_at	10.68
Igf1	1452014_a_at	10.58
Msr1	1448061_at	9.64
C1qa	1417381_at	8.97
Ccl9	1448898_at	8.82
Cd68	1449164_at	8.78
Psrc1	1417323_at	8.46
Ccr5	1424727_at	8.34
Cep55	1452242_at	7.82
Cdkn1a	1421679_a_at	6.99
Gpr35	1449976_a_at	6.65
Cdc2a	1448314_at	6.61
Csf2rb2	1449360_at	6.58
Clec5a	1421366_at	6.44
Bst1	1449453_at	6.40
Ms4a6d	1419598_at	6.40
Apoe	1432466_a_at	6.01
Igj	1424305_at	5.98
Mfap5	1449082_at	5.96
Fcgr2b	1451941_a_at	5.92
Eln	1420855_at	5.86
Fcgr1	1417876_at	5.78
Cenpf	1427161_at	5.71
Igh-VJ558	1425763_x_at	5.66
Msr2	1448891_at	5.66
Acp5	1431609_a_at	5.58
Col1a2	1423110_at	5.52
Ccnb2	1450920_at	5.46

Gla	1418248_at	5.42
Sprr1a	1449133_at	5.28
Pdgfc	1419123_a_at	5.20
Cd84	1422875_at	5.15
Ncf1	1425609_at	5.07
F10	1449305_at	5.06
Nuf2	1430811_a_at	5.04
Fn1	1426642_at	5.03
Itgb6	1432281_a_at	5.00
Sulf2	1430388_a_at	5.00
Ube2c	1452954_at	4.91
Ctsk	1450652_at	4.91
Cdca5	1416802_a_at	4.88
C130076O07Rik	1434709_at	4.83
Ccng1	1450017_at	4.83
Cd86	1449858_at	4.75
Sh2b2	1450718_at	4.69
Pla2g7	1430700_a_at	4.69
Itgax	1419128_at	4.66
Fcgr3	1448620_at	4.66
Col3a1	1427884_at	4.59
Ms4a8a	1418797_at	4.59
Slc15a3	1420697_at	4.42
Lrg1	1417290_at	4.42
Cpxm1	1448901_at	4.34
Lcn2	1427747_a_at	4.32
Lypla3	1422341_s_at	4.29
Egr2	1427683_at	4.28
Clec4e	1420330_at	4.26
Lpl	1431056_a_at	4.23
Cfp	1452279_at	4.23
Tlr2	1419132_at	4.22
Spbc25	1424118_a_at	4.21
Pld3	1416013_at	4.21
Ccna2	1417910_at	4.18
Pira2	1418809_at	4.17
Psap	1421813_a_at	4.15
Ccnb1-rs1	1448205_at	4.14
Ckap2	1434748_at	4.14
Myo5a	1431320_a_at	4.13
Enpp1	1419276_at	4.11

Rgs1	1417601_at	4.09
Clec4a2	1422013_at	4.08
Ctsb	1417492_at	4.06
Nusap1	1416309_at	4.05
Birc5	1424278_a_at	4.05
Syngn1	1419289_a_at	4.01
Igk-V28	1452463_x_at	3.98
BC004044	1417688_at	3.97
Clec7a	1420699_at	3.90
Bcl2a1a	1419004_s_at	3.88
Sfrp1	1448395_at	3.83
Mmp14	1448383_at	3.80
Tcfec	1419537_at	3.78
Ctsd	1448118_a_at	3.77
F7	1419321_at	3.77
Litaf	1416304_at	3.76
Nek6	1425850_a_at	3.75
Itgb2	1450678_at	3.73
Mafb	1451716_at	3.72
Top2a	1454694_a_at	3.70
Sirpa	1416986_a_at	3.70
Clec4d	1420804_s_at	3.69
Procr	1420664_s_at	3.69
Fscn1	1416514_a_at	3.68
Ccl6	1417266_at	3.62
Axl	1423586_at	3.60
Mki67	1426817_at	3.51
Tfpi2	1418547_at	3.49
Lgmn	1448883_at	3.48
Lilrb3	1424302_at	3.47
Hexb	1460180_at	3.47
Basp1	1428572_at	3.45
Klhdc8a	1424885_at	3.44
Edem1	1424065_at	3.43
Fcna	1418243_at	3.42
Socs3	1455899_x_at	3.39
Mark1	1449630_s_at	3.36
Pld4	1433678_at	3.36
Prc1	1423775_s_at	3.35
Cenpa	1450842_a_at	3.35
Aspm	1422814_at	3.34

Shcbp1	1416299_at	3.34
Tnfrsf12a	1418571_at	3.34
Folr2	1451648_a_at	3.34
P2ry6	1425214_at	3.31
Rrm2	1448226_at	3.27
Ccdc80	1424187_at	3.26
Cyp7b1	1421075_s_at	3.25
Lip1	1423140_at	3.25
Rad51	1418281_at	3.25
Clec11a	1418796_at	3.21
Ptges	1449450_at	3.18
Kif20a	1449207_a_at	3.13
Tpx2	1428104_at	3.11
Gusb	1448124_at	3.10
Rnf128	1418318_at	3.05
Ccl3	1419561_at	3.03
Nfam1	1425714_a_at	3.03
Abca1	1421839_at	3.02
Tnfrsf1b	1418099_at	2.99
Mmp2	1439364_a_at	2.99
Tbxas1	1416827_at	2.98
Hmox1	1448239_at	2.97
Melk	1416558_at	2.97
Tnfaip8l1	1449125_at	2.97
C1qtnf6	1431856_a_at	2.96
Aif1	1418204_s_at	2.95
Lair1	1430447_a_at	2.94
Cd48	1427301_at	2.93
Ly86	1422903_at	2.90
Clu	1418626_a_at	2.90
Pilra	1427327_at	2.88
Ect2	1419513_a_at	2.86
Thyn1	1438480_a_at	2.83
Isg20l1	1450506_a_at	2.82
Slc37a2	1452492_a_at	2.82
Itm2a	1451047_at	2.82
Emr1	1451161_a_at	2.81
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Wisp1	1448593_at	2.79
Tgfb3	1417455_at	2.78
Man2b1	1416340_a_at	2.77

Capg	1450355_a_at	2.77
D17H6S56E-5	1417821_at	2.76
Slamf9	1419315_at	2.76
Syt11	1449264_at	2.75
Evi2a	1450241_a_at	2.75
Tmem37	1417611_at	2.74
Oprs1	1451956_a_at	2.72
Ctsz	1417870_x_at	2.71
Cks2	1417458_s_at	2.71
Fcer1g	1418340_at	2.71
Fbn1	1460208_at	2.70
Nckap1l	1428787_at	2.69
Foxm1	1453107_s_at	2.69
Bcl3	1418133_at	2.67
Atf3	1449363_at	2.66
Gadd45g	1453851_a_at	2.64
Samsn1	1421457_a_at	2.63
Myo1f	1421618_at	2.63
Cd44	1452483_a_at	2.63
Cenpk	1418264_at	2.63
Tnfaip2	1416273_at	2.61
T2bp	1426501_a_at	2.61
Csf2rb1	1450200_s_at	2.60
Ltbp2	1418061_at	2.59
Clec4b1	1421685_at	2.58
Dpp7	1435680_a_at	2.55
Glipr2	1428492_at	2.55
Tmem106a	1425025_at	2.54
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Bmp1	1427457_a_at	2.53
Lgals3bp	1448380_at	2.53
Glipr1	1424927_at	2.52
Ncf4	1418465_at	2.52
Fstl1	1416221_at	2.51
Lgals1	1419573_a_at	2.51
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Mvd	1417303_at	2.49
Cxcl16	1449195_s_at	2.47
Ninj1	1448417_at	2.47
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Cd302	1448919_at	2.45
Lap3	1450860_at	2.45
Phex	1421979_at	2.44
Pdlim4	1417928_at	2.43
Ptger4	1424208_at	2.43
BC030183	1455587_at	2.43
---	1450105_at	2.40
Slc11a1	1420361_at	2.40
Cerk	1434034_at	2.40
Ddit4l	1439332_at	2.40
Kcnn4	1435945_a_at	2.38
Cnm2	1423475_at	2.38
Ctps	1416563_at	2.38
Lgals3	1426808_at	2.38
LOC675709	1435758_at	2.37
LOC677168	1431591_s_at	2.36
Col8a1	1418440_at	2.36
Gpr137b	1450882_s_at	2.36
Ckap4	1426754_x_at	2.35
Kif2c	1437611_x_at	2.35
Slc39a14	1427035_at	2.35
Slc16a6	1417884_at	2.34
Mpeg1	1427076_at	2.34
Ctsa	1448128_at	2.34
Ptgir	1427313_at	2.33
Snx10	1431055_a_at	2.33
Apobec1	1451755_a_at	2.33
Glrx	1416592_at	2.32
Ly96	1449874_at	2.31
Acp2	1424655_at	2.31
Sgpl1	1415893_at	2.30
Lpl	1415904_at	2.30
Epsti1	1452087_at	2.29
Csf2ra	1420703_at	2.29
H2-DMA	1422527_at	2.29
Aadac	1448813_at	2.28
Cacnb3	1448656_at	2.27
Pgd	1423706_a_at	2.27
Chid1	1449267_at	2.27
Rgs16	1455265_a_at	2.26
2810417H13Rik	1419153_at	2.25

Ak1	1422184_a_at	2.25
Adam8	1416871_at	2.24
Tyms	1424991_s_at	2.24
Kif23	1455990_at	2.23
Phlda3	1449002_at	2.22
Cd14	1417268_at	2.22
LOC637870	1422706_at	2.22
BC032204	1433964_s_at	2.21
Itgb5	1417534_at	2.21
Loxl1	1451978_at	2.21
Dio2	1418937_at	2.19
Unc93b1	1423768_at	2.19
Rab3il1	1425133_s_at	2.18
Sfn	1448612_at	2.18
Ptplad2	1450967_at	2.17
Cks1b	1416698_a_at	2.17
Zmat3	1449353_at	2.16
Ebi3	1449222_at	2.15
Ctsh	1418365_at	2.15
Nubp1	1418905_at	2.15
Ccdc109b	1418778_at	2.13
Itgae	1449216_at	2.12
Pycard	1417346_at	2.12
Gpr34	1422542_at	2.12
Igfbp2	1454159_a_at	2.12
Neu1	1416831_at	2.12
Gch1	1420499_at	2.11
Rgs10	1416882_at	2.11
Ifi30	1422476_at	2.10
Ppp1r14b	1450914_at	2.10
Cklf	1424495_a_at	2.09
Dbn1	1426024_a_at	2.09
Rab11fip5	1427405_s_at	2.09
Slc29a3	1455731_at	2.09
Arpc4	1423588_at	2.08
Col4a1	1426348_at	2.08
Emilin1	1416414_at	2.07
Brca1	1424629_at	2.07
Scamp5	1451224_at	2.06
Cstb	1422507_at	2.06
5730536A07Rik	1416634_at	2.06

Ftl1	1418364_a_at	2.05
Rps27l	1423254_x_at	2.05
Scarb1	1416050_a_at	2.05
Ptgs1	1423414_at	2.03
Lrrc8c	1423614_at	2.03
Serpib9	1422601_at	2.03
Dscr1	1416600_a_at	2.01
4632428N05Rik	1448407_at	2.01
Ftl2	1422301_at	2.00
Cox6b2	1435275_at	2.00
<i>DOWNREGULATED GENES</i>		
Bex2	1417388_at	-5.78
AB041803	1460417_at	-5.65
Igfbp3	1423062_at	-5.05
Cst8	1424479_at	-4.76
Klf15	1448181_at	-4.74
Ednrb	1423594_a_at	-4.39
LOC671894	1448553_at	-4.26
Gpr155	1452353_at	-3.94
Hamp1	1419197_x_at	-3.89
E130013N09Rik	1434292_at	-3.82
Esm1	1449280_at	-3.65
Cys1	1419070_at	-3.62
Aass	1423523_at	-3.55
C330016K18Rik	1435420_at	-3.47
Cyp2d22	1419040_at	-3.42
Fmo3	1449525_at	-3.40
1110018M03Rik	1419376_at	-3.27
Aox3	1418858_at	-3.26
Rasal2	1436910_at	-3.12
Ddc	1426215_at	-3.04
Reck	1450784_at	-2.99
LOC670044	1422771_at	-2.98
Edg7	1418723_at	-2.95
Cntn1	1449563_at	-2.94
Fgfbp1	1419086_at	-2.83
Figf	1450268_at	-2.80
G0s2	1448700_at	-2.79
Fmo1	1417429_at	-2.71
Nr4a1	1416505_at	-2.67
Prkg2	1435162_at	-2.67

Sorbs1	1436737_a_at	-2.67
Cyp3a13	1419523_at	-2.64
Atp6v1c2	1430306_a_at	-2.62
Atp1a2	1434893_at	-2.61
Rere	1448018_at	-2.61
2310016C08Rik	1421031_a_at	-2.60
Dtna	1429768_at	-2.58
BC004853	1451498_at	-2.58
Sec14l4	1424676_s_at	-2.56
Grem2	1418492_at	-2.56
Scube2	1453486_a_at	-2.53
Tns1	1449405_at	-2.44
D530037H12Rik	1437917_at	-2.42
Eng	1432176_a_at	-2.40
Bambi	1423753_at	-2.40
Ankrd47	1456629_at	-2.40
Fgfr2	1433489_s_at	-2.39
Lss	1426913_at	-2.39
Bex4	1428209_at	-2.39
Edil3	1433474_at	-2.39
Bmp2	1423635_at	-2.38
Tex11	1419729_at	-2.37
Luc7l2	1436766_at	-2.37
Tmlhe	1452500_at	-2.37
Hs3st1	1423450_a_at	-2.36
Sult1a1	1427345_a_at	-2.36
Dock9	1450932_s_at	-2.31
Tmcc2	1452666_a_at	-2.30
Klf9	1456341_a_at	-2.29
Clec14a	1419467_at	-2.28
Foxa1	1418496_at	-2.26
Cdo1	1448842_at	-2.24
Abi3bp	1427054_s_at	-2.23
5730557B15Rik	1453287_at	-2.23
Bbox1	1419618_at	-2.22
Mat2a	1423667_at	-2.19
Aldh6a1	1448104_at	-2.19
Ace2	1425102_a_at	-2.17
6330505N24Rik	1439018_at	-2.17
Ppp1r14a	1418086_at	-2.17
LOC226654	1456169_at	-2.17

Acsl1	1423883_at	-2.16
Sdpr	1416779_at	-2.16
Vldlr	1442169_at	-2.16
Tmem100	1449533_at	-2.15
Tcf21	1417447_at	-2.14
Ppap2b	1448908_at	-2.14
Syne2	1427982_s_at	-2.13
Ralgps2	1428789_at	-2.12
Slc25a42	1424790_at	-2.11
Klf2	1448890_at	-2.11
Myb	1421317_x_at	-2.10
Lrrc16	1451804_a_at	-2.10
Azgp1	1417776_at	-2.09
Chad	1420569_at	-2.09
RP23-136K12.4	1416195_at	-2.08
Adrb3	1455918_at	-2.08
---	1434025_at	-2.07
Plce1	1452398_at	-2.07
Lims2	1424408_at	-2.07
Ptprb	1427486_at	-2.07
Ramp2	1418187_at	-2.06
Plagl1	1426208_x_at	-2.04
Igsf4a	1417378_at	-2.03
Akr1c14	1418979_at	-2.03
Tekt2	1418484_at	-2.03
Ndrg2	1448154_at	-2.03
Cyp39a1	1418780_at	-2.02
Gp1bb	1422977_at	-2.02
Ppp3r1	1421786_at	-2.02
Ash1l	1420985_at	-2.02
BC024479	1426232_at	-2.02
Utx	1427672_a_at	-2.02
Ddb2	1436680_s_at	-2.01
Phxr4	1422272_at	-2.01
3732412D22Rik	1435321_at	-2.01
Ttc28	1449520_at	-2.00

Supplementary Table 1. Genes regulated in whole lung homogenates 14 days following bleomycin instillation in wild-type C57Bl6/J mice. Affymetrix MOE430A genechips were analysed using Genespring GX 7.3.1. as described in the materials and methods. Downregulated genes have been arbitrarily assigned as negative values. Genes related to the coagulation cascade are highlighted in bold.