



Supplementary Figure S1. Technique of murine colonic end-to-end anastomosis.

(A) Exposure of colonic rectosigmoid junction (A1, scheme; A2, photo, dashed line outlines colonic walls). A3, scheme, 90° rotation of colon to A4, scheme, secure colonic artery in the mesocolon during transection of the colon. (B) End-to-end anastomosis starts with one anchor stitch next to mesocolon and one anchor stitch opposite of mesocolon (B1, scheme, orange arrows indicate needle guidance; B2-3, photos). (C) Colonic lumen is stretched between anchor threads (C1, scheme; C2, photo, dashed line outlines colon). (D) 5 single button stitches on the anterior side (D1, scheme; D2, photo, dashed line outlines colon). (E) 180° rotation to E1, scheme, posterior side of the colonic lumen to E2, scheme, set 5 more single button stitches; followed by E3, scheme, removal of anchor threads and reposition of colon.

Supplementary Table S1.

List of 422 genes related to wound healing (GO term 0042060 “wound healing”).

Abat, Abcc8, Acta2, Actb, Actg1, Actn1, Acvrl1, Adam17, Adamts13, Adamts18, Adipor2, Adora2a, Adra2a, Adra2b, Adra2c, Adtrp, Ajap1, Ajuba, Ak3, Alox12, Alox15, Alox5, Ano6, Anxa1, Anxa5, Anxa6, Anxa8, Ap3b1, Apcs, Apoe, Apoh, Arfgef1, Arhgap24, Arhgap35, Arhgef19, Arl8b, Axl, B4galt1, Blk, Bloc1s3, Bloc1s4, Bloc1s6, C1galt1c1, C1qtnf1, BC004004, Cadm4, Carmil2, Cask, Casp3, Cav1, Cav3, Ccn1, Ccn4, Cd109, Cd151, Cd34, Cd36, Cd40, Cd40lg, Cd44, Cd59b, Cd9, Cdh3, Cdkn1a, Ceacam1, Cela2a, Cflar, Chmp1a, Chmp1b, Chmp2a, Chmp2b, Chmp3, Chmp4b, Chmp4c, Chmp5, Chmp6, Chmp7, Clasp1, Clasp2, Cldn1, Cldn19, Cldn3, Cldn4, Clec7a, Clic1, Cnn2, Col1a1, Col3a1, Col5a1, Comp, Coro1b, Cpb2, Crk, Csrp1, Ctsg, Cx3cl1, Cxcr4, Cyp4f14, Cyp4f15, Cyp4f40, Cyp4f14, Cyp4f15, Dag1, Dcbld2, Ddr1, Dgka, Dgkb, Dgkd, Dgke, Dgkg, Dgkh, Dgki, Dgkk, Dgkq, Dgkz, Dmtn, Drd5, Dsp, Dst, Dtnbp1, Duox1, Duox2, Dysf, Edn1, Elk3, Emilin2, Enpp4, Entpd1, Entpd2, Epb41l4b, Ephb2, Eppk1, Erbb2, Erbb3, Ereg, Evpl, Ext1, F10, F11, F11r, F12, F13a1, F13b, F2, F2r, F2rl1, F2rl2, F2rl3, F3, F5, F7, F8, F9, Fap, Fbln1, Fcer1g, Fer1l5, Fermt1, Fermt2, Fermt3, Fga, Fgb, Fgf1, Fgf10, Fgf2, Fgfr1op2, Fgfr2, Fgg, Fibp, Fkbp10, Flna, Fn1, Foxa2, Foxc2, Fundc2, Fut10, Fzd6, Fzd7, Gas6, Gata1, Gata2, Gata4, Ggcx, Gli3, Gna12, Gna13, Gnaq, Gnass, Gp1ba, Gp1bb, Gp5, Gp6, Gp9, Gpr4, Gpx1, Grhl3, Hbb-bt, Hbegf, Hgf, Hgf, Hif1a, Hmox1, Hnf4a, Hps4, Hps5, Hps6, Hpse, Hras, Hrg, Hspb1, Igf1, Il1a, Il24, Il6, Il6st, Ilk, Ins2, Ins13, Itga2, Itga5, Itgb1, Itgb3, Itgb6, Itpk1, Jak2, Jaml, Jmjd1c, Kank1, Kdr, Klkb1, Kng2, Krt1, Krt6a, Lck, Lcp1, Lman1, Lnpk, Lox, Lyn, Macf1, Map3k5, Mapk14, Mcam, Mertk, Metap1, Mia3, Mmp12, Mmrn1, Mpig6b, Mpl, Mrtfa, Msx2, Mtor, Myh9, Myl12a, Myl9, Mylk, Myof, Myoz1, Ndnf, Nf1, Nfe2l2, Nlrp6, Nog, Nos3, Notch2, Notch4, Nrg1, Ocln, Odam, Oprm1, P2rx1, P2ry1, P2ry12, Pabpc4, Pafah2, Pak1, Papss2, Pdcd10, Pdgfa, Pdgfb, Pdgfra, Pdgrfb, Pdpn, Pear1, Pf4, Pf4, Phldb2, Pik3ca, Pik3cb, Pik3cg, Pla2g4a, Plat, Plau, Plaur, Plcg2, Plec, Plek, Plet1, Plg, Plpp3, Plscr1, Ppara, Ppard, Pparg, Ppia, Ppl, Ppp3ca, Prcp, Prdx2, Prkca, Prkcd, Prkce, Prkcq, Prkg1, Proc, Procr, Pros1, Proz, Prss56, Pten, Ptk2, Ptk7, Ptpn6, Rab27a, Rab3a, Raf1, Rap2b, Reg3b, Reg3g, Rhoa, Rhoc, Rreb1, S100a8, Saa1, Saa2, Scarb1, Scrib, Scube1, Sdc1, Sdc4, Selp, Serpina1b, Serpina1e, Serpina10, Serpinb2, Serpinc1, Serpind1, Serpine1, Serpine2, Serpinf2, Serping1, Sh2b3, Shh, Slc11a1, Slc12a2, Slc4a1, Slc7a11, Smad2, Smad3, Smad4, Smoc2, Smpd1, Sprr3, Src, Srf, Srsf6, St3gal4, Stxbp1, Stxbp3, Syk, Syt11, Syt7, Sytl4, Tafa5, Tbx2r, Tec, Tfpi, Tfpi2, Tgfa, Tgfb1, Tgfb2, Tgfb3, Tgfb1, Tgfb2, Thbd, Thbs1, Timp1, Tln1, Tlr4, Tmeff2, Tnf, Tnfaip3, Tnfrsf12a, Tor1a, Tpm1, Trem1, Trim72, Tsku, Tspan32, Tspan8, Txk, Tyro3, Ubash3b, Usf1, Vav1, Vav2, Vav3, Vcl, Vegfa, Vil1, Vkorc1, Vtn, Vwf, Was, Wfdc1, Wnt3a, Wnt4, Wnt5a, Wnt5b, Wnt7a, Xbp1, Yap1

Supplementary Table S2.

List of top 50 differently regulated genes related to wound healing (GO term 0042060 “wound healing”) per timepoint.

Inflammatory phase: Metap1, Stxbp3, Pafah2, Vegfa, Fibp, Ap3b1, Vcl, Reeb1, Pdgfa, Map3k5, Adam17, Cd44, Scarb1, P2ry1, Plat, Fermt3, Lox, Syt11, Plet1, Igf1, Cxcr4, St3gal4, Crk, Arfgef1, B4galt1, Apoe, Cldn4, Rhoc, Cdkn1a, Alox5, Mpig6b, Lck, Cd40, Cdh3, Carmil2, Saa2, Tspan32, Blk, Cadm4, Ubash3b, Tnf, Clec71, Ndnf, Grhl3, F5, P2ry12, P2rx1, Alox15, Comp, Gp5

Proliferative phase: Dgkd, Arhgap35, Dst, Syk, Syk7, Duox2, Rreb1, Prkca, Ephb2, Pdgfa, Hras, Chmp2a, Cd151, Chmp5, Mia3, Arfgef1, Prdx2, Chmp2b, Chmp1a, Fibp, BC004004, Usf1, Chmp7, Cflar, Serpine2, Tor1a, St3gal4, Cldn3, Tspan8, Cd9, Myh9, Gpx1, Chmp4b, F11r, Saa1, Adra2a, Vkorc1, Bloc1s4, Vav2, Entpd2, Plcg2, Pik3cg, Mmp12, Slc7a11, Ubash3b, Abcc8, F7, Cd59b, Cldn1, Saa2

Reparative phase: Map3k5, Prcp, Srf, Adam7, Itga5, Gnaq, Ephb2, Chmp6, Fibp, Usf1, Tor1a, Clasp1, St3gal4, Notch2, Clasp2, Itga2, Hbegf, Wfdc1, Ggcx, Sytl4, Plcg2, Arhgap24, Ccn1, Rab3a, Vav2, Serpine2, Dgke, Jaml, Ndnf, Ubash3b, Txk, Mia3, Tln1, Actn1, Hgf, Fermt1, Chmp2a, Arhgap35, Vcl, Macf1, Duox2, Cyp4f14, Anxa8, Chmp1a, Dag1, Chmp4b, Flna, Col3a1, Tpm1, Saa1