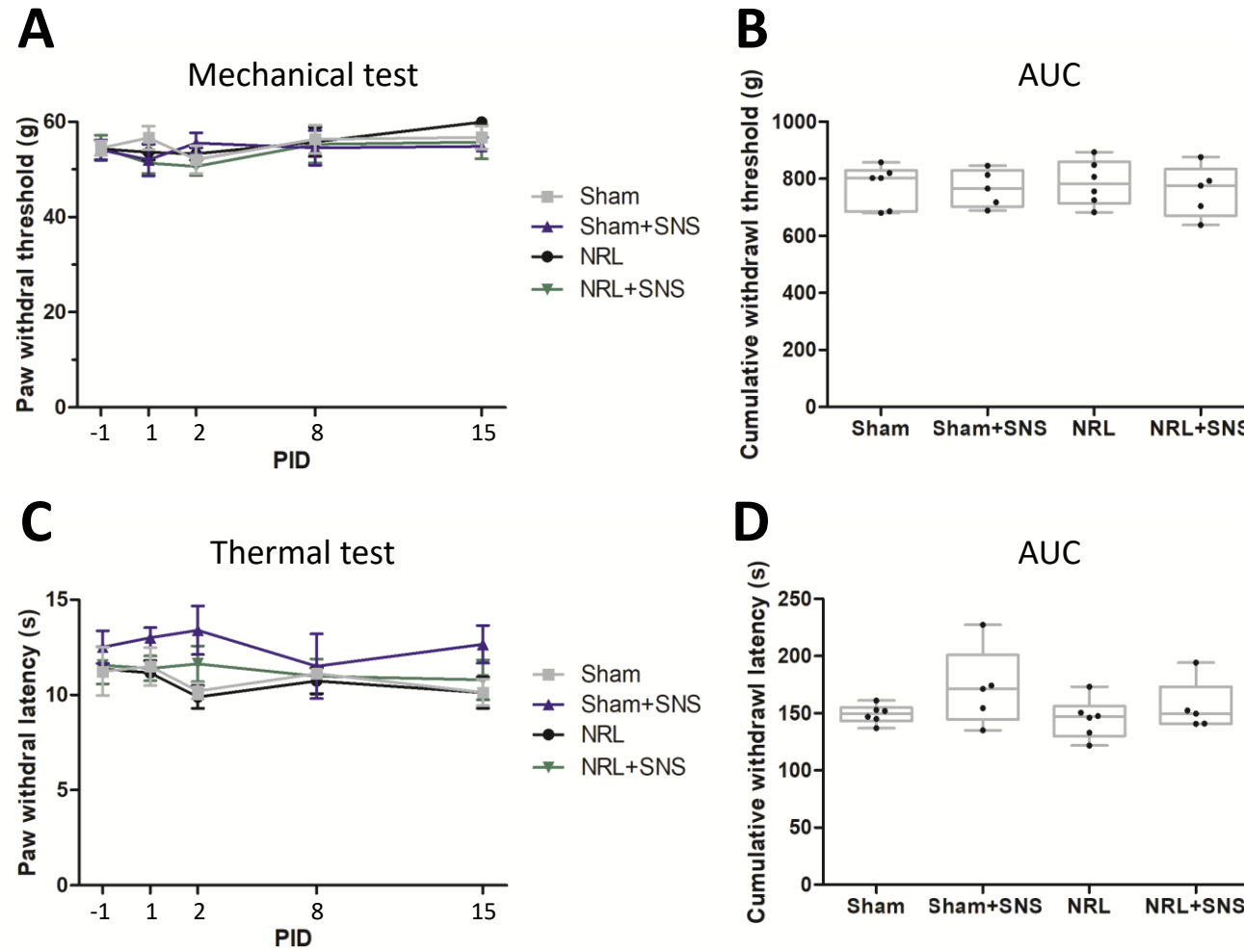


Supplementary table 1 Differentially expressed genes between experimental groups

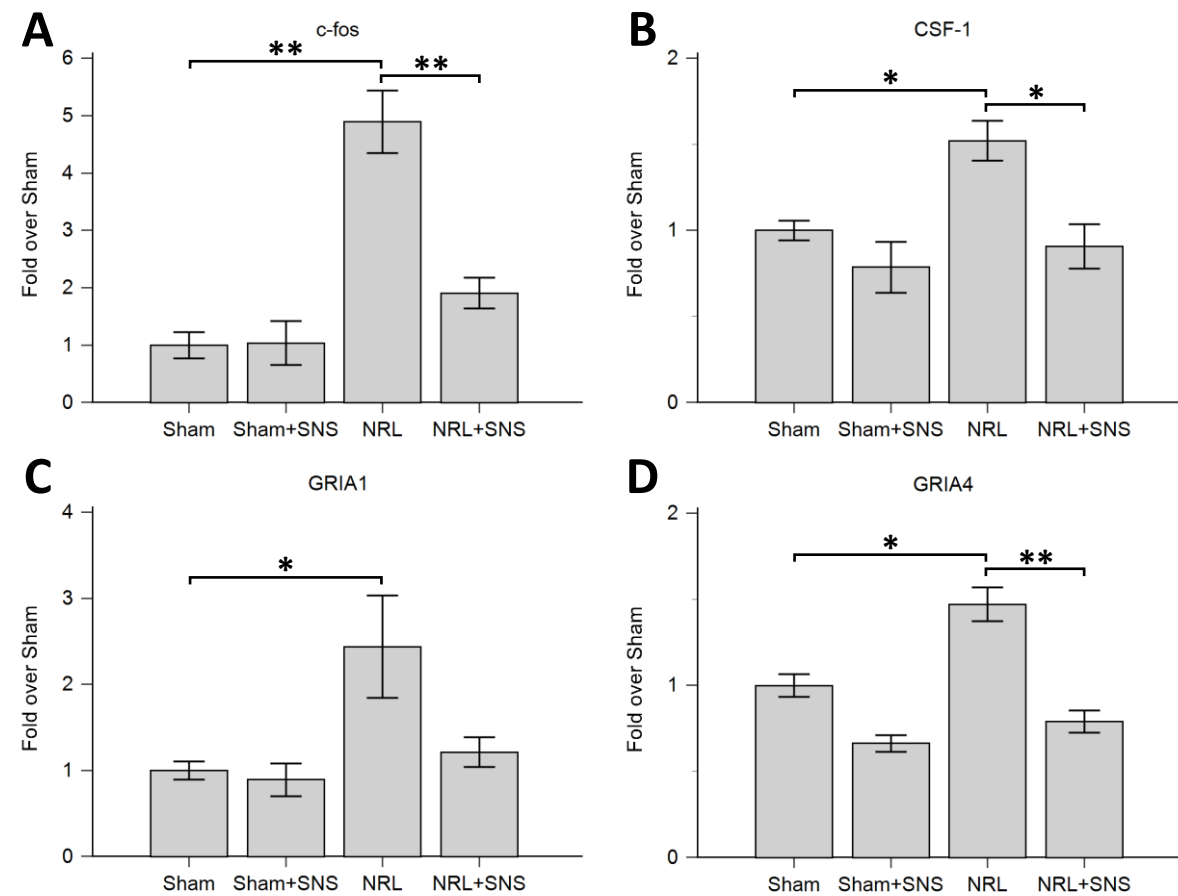
Differentially expressed genes between groups: Sham v.s. Sham+SNS
Anxa1, Apex1, Arid1a, Atg5, Atp6v0e, Bad, Bard1, Bbc3, Bcl2, Bcl2l1, Becn1, Birc2, Birc5, Blnk, Braf, Brca1, Brd2, Casp2, Casp3, Casp4, Ccni, Cd47, Chek1, Chek2, Chuk, Creb1, Crebbp, Cryba4, Csk, Ctse, E2f1, Eed, Ehmt2, Entpd2, Ep300, Ezh2, Fancc, Fancd2, Gclc, Gria4, Hat1, Hdac1, Hells, Hira, Igf1r, Ikbkb, Ikbkg, Irak1, Itgb5, Kdm1a, Kdm2a, Kdm2b, Kdm5a, Kdm5d, Kdm6a, Kmt2a, Lamp2, Lfng, Lig1, Map3k1, Mapk14, Mbd2, Mcm2, Mcm6, Mfge8, Msh2, Myc, Nbn, Ncaph, Ncor1, Nfkb1, Nfkbia, Nfkbie, Nlgn2, Nrp2, Parp2, Pcna, Pik3cg, Plcg2, Pld1, Plekhh1, Plp1, Pole, Pten, Ptms, Ptpn6, Pttg1, Rad1, Rad51, Rad9a, Rala, Rhoa, Rpa1, Rps9, Rrm2, S1pr4, Setd1b, Setd2, Sin3a, Smarca4, Smarca5, Spint1, Steap4, Stmn1, Stx18, Suv39h1, Suz12, Tarbp2, Timp1, Tmem206, Top2a, Tradd, Traf6, Uty, Vps4b, Wdr5, Xiap
Differentially expressed genes between groups: Sham v.s. NRL
Abl1, Akt1, Ambra1, Anapc15, Anxa1, Apc, Apex1, Apoe, Arid1a, Atf3, Atg14, Atg3, Atg5, Atg7, Atg9a, Atp6v0e, Atp6v1a, Bad, Bag3, Bak1, Bbc3, Bcl2, Bcl2l1, Becn1, Bin1, Birc2, Bola2, Braf, Brd2, Brd4, C1qa, C1qb, C1qc, C3, C3ar1, Cables1, Calr, Casp2, Casp3, Casp4, Casp6, Ccl2, Ccl5, Ccni, Cd3e, Cd47, Cd68, Cd74, Cdk20, Cflar, Chek1, Chek2, Chuk, Cks1b, Col6a3, Cotl1, Cox5b, Cp, Creb1, Crebbp, Crip1, Csf1, Csk, Ctsf, Ctss, Cyp27a1, Cyp7b1, Dab2, Ddx58, Dicer1, Dlg1, Dlg4, Dock1, Dock2, Dot1l, Dst, Eed, Eef2k, Egfr, Ehmt2, Entpd2, Ep300, Epg5, Erbb3, Ezh1, Ezh2, Fbln5, Fcer1g, Fgd2, Fos, Fscn1, Gadd45a, Gadd45g, Gja1, Gna15, Grap, Gria1, Gria4, Grn, Hat1, Hdac1, Hdac4, Hdac6, Hif1a, Hira, Hmox1, Homer1, Hspb1, Ifih1, Ifitm2, Igf1, Igf1r, Igf2r, Ikbkb, Ikbkg, Il10rb, il1a, il1b, Il1rap, Il1rl2, Il1rn, Il2rg, Il6, Inpp5d, Irak1, Irak2, Irf1, Irf2, Itga7, Itgb5, Jag1, Jarid2, Jun, Kat2a, Kat2b, Kcnj10, Kdm1a, Kdm2a, Kdm2b, Kdm3a, Kdm4c, Kdm5a, Kdm5c, Kdm5d, Kdm6a, Kmt2a, Lacc1, Lamp2, Lfng, Lgm1, Lilrb4a, Lmna, Map1lc3a, Map2k1, Map2k4, Map3k1, Mapk14, Mbd2, Mbd3, Mdm2, Mertk, Mfge8, Mmp12, Mmp14, Msh2, Myc, Nbn, Ncf1, Ncor1, Ncor2, Nfkb1, Nfkb2, Nfkbia, Nfkbie, Ngfr, Nlgn1, Nlgn2, Nlrp3, Npl, Nrm, Nrp2, Nthl1, Olfm13, Optn, P2rx7, P2ry12, Pak1, Parp2, Pcna, Pex14, Pik3ca, Pik3cb, Pik3cg, Pik3r1, Pik3r2, Pla2g4a, Pld1, Pld2, Plekhh1, Plp1, Plxdc2, Plxnb3, Pms2, Ppp3ca, Ppp3cb, Ppp3r1, Prkaca, Prkdc, Psen2, Psmb8, Pten, Ptms, Rab7, Rad1, Rad51, Rad9a, Rala, Rb1cc1, Rela, Relb, Reln, Rhoa, Ripk2, Rpa1, Rpl28, Rpl29, Rpl36a, Rpl9, Rps10, Rps2, Rps21, Rps9, S100a10, S1pr4, Serping1, Sesn1, Sesn2, Setd1a, Setd1b, Setd2, Setd7, Shank3, Sin3a, Sirt1, slc1a3, Smarca4, Smarca5, Smc1a, Socs3, Sox10, Sox4, Stat1, Stmn1, Stx18, Suv39h1, Suz12, Tarbp2, Tcigr1, Tgfb1, Tgfb1r, Tgm1, Tgm2, Tie1, Timp1, Tlr7, Tm4sf1, Tmc7, Tmem206, Tmem64, tnfa, Tnfrsf12a, Tradd, Traf2, Traf3, Traf6, Trem2, Trp53bp2, Trpm4, Tspan18, Ulk1, Ung, Uty, Vav1, Vegfa, Vim, Vps4a, Vps4b, Wdr5, Xiap, Zfp367
Differentially expressed genes between groups: Sham v.s. NRL+SNS
Apoe, Atg14, Atg5, Atg7, Bcl2l1, C1qa, C1qc, C3, C3ar1, Casp3, Casp4, Casp6, Cd3e, Cd68, Cd74, Cflar, Chek2, Col6a3, Cotl1, Cp, Crip1, Ctss, Cyp7b1, Dab2, Ddx58, Dock1, Ehmt2, Entpd2, Erbb3, Ezh2, Fcer1g, Gna15, Gria4, Hdac4, Hif1a, Ifih1, Ifitm2, Igf1, Il10rb, Il1rap, Irak2, Irak4, Irf1, Itga7, Jun, Kdm2b, Kdm3a, Lamp2, Lfng, Lgm1, Lilrb4a, Mdm2, Mertk, Mmp12, Ncf1, Nfkb1, Nfkb2, Nlrp3, Npl, Olfm13, P2rx7, P2ry12, Pik3cg, Pld1, Pld2, Plxdc2, Prkdc, Psmb8, Pttg1, S1pr4, Sesn2, Snca, Socs3, Sox4, Tgfb1r, Tie1, Timp1, Tlr7, Tmc7, Tnfrsf12a, Trem2, Ung, Uty, Vav1

Differentially expressed genes between groups: NRL v.s. NRL+SNS

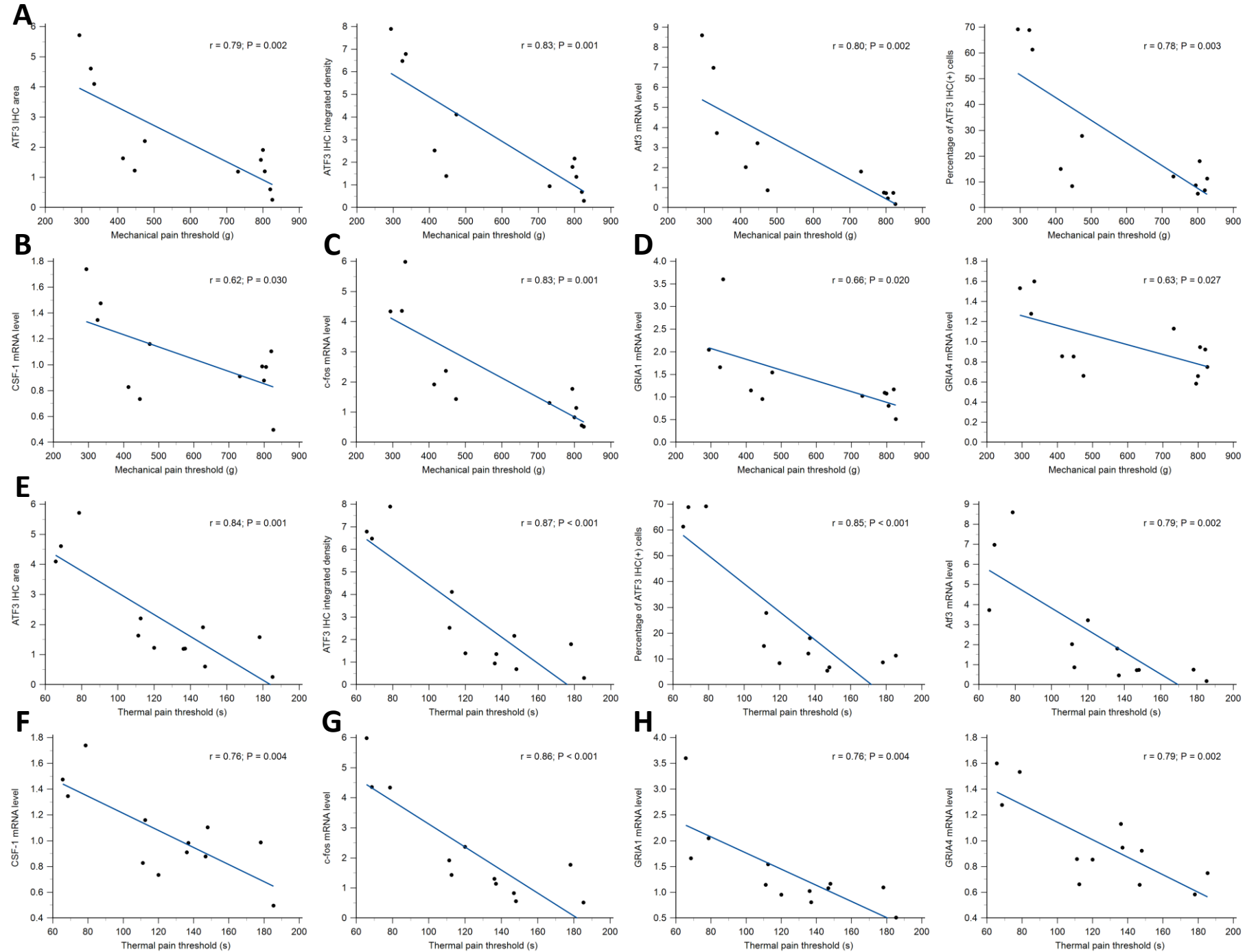
Abl1, Adamts16, Akt1, Ambra1, Anapc15, Apc, Apex1, Arid1a, Atf3, Atg3, Atg5, Atg7, Atg9a, Atp6v0e, Atp6v1a, Atr, Bad, Bag3, Bard1, Bax, Bcl2, Bcl2l1, Becn1, Bola2, Braf, Brd2, Brd4, C1qb, C3, Cables1, Calr, Casp3, Casp4, Ccl2, Ccl3, Ccni, Cd163, Cd47, Cd68, Cdk20, Cflar, Chek1, Chuk, Clstn1, Cntnap2, Cox5b, Creb1, Crebbp, Cryba4, Csf1, Csk, Ctsf, Dicer1, Dlg4, Dot1l, Dst, Eed, Ep300, Epg5, Ezh1, Ezh2, Fos, Fscn1, Gadd45a, Gadd45g, Gclc, Gja1, Gria1, Gria2, Gria4, Hat1, Hdac1, Hdac6, Hif1a, Hira, Homer1, Hspb1, Ikbkb, Ikbkg, Il10rb, Il1b, Il6, Irak1, Itga7, Jag1, Jarid2, Jun, Kat2a, Kdm1a, Kdm2a, Kdm3a, Kdm4c, Kdm5c, Kdm5d, Kdm6a, Kmt2a, Lamp2, Lingo1, Map2k1, Map2k4, Mapk12, Mapk14, Mapt, Mbd2, Mdm2, Nbn, Ncor1, Ncor2, Nfkb1, Nfkb1a, Nlgn1, Nlgn2, Nqo1, Optn, Pak1, Pcna, Pex14, Pik3ca, Pik3cb, Pik3r1, Pik3r2, Pld2, Plekha7, Pms2, Ppfia4, Ppp3ca, Ppp3cb, Ppp3r1, Prkaca, Prkar2b, Prkce, Prkdc, Psen2, Pten, Ptms, Rab7, Rala, Rb1cc1, Rhoa, Ripk2, Rpa1, Rpl36a, Rps21, S100a10, Sesn1, Sesn2, Setd1a, Setd1b, Setd2, Setd7, Sin3a, slc1a3, Smarca4, Smarca5, Smc1a, Socs3, Stmn1, Suz12, Tarbp2, Timp1, Tm4sf1, Tmem206, Tnfrsf12a, Traf6, Trp53bp2, Trpa1, Trpm4, Tspan18, Ulk1, Ung, Uty, Vegfa, Vps4a, Vps4b, Wdr5, Xiap, Zfp367



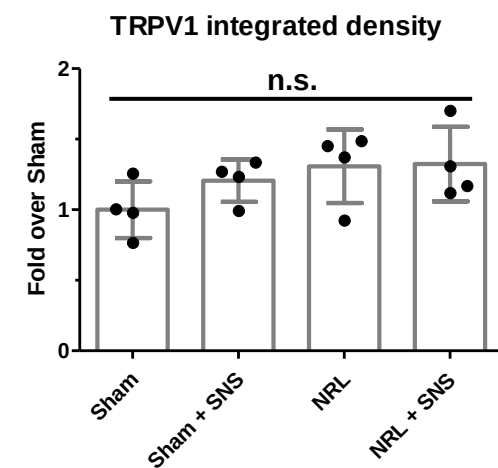
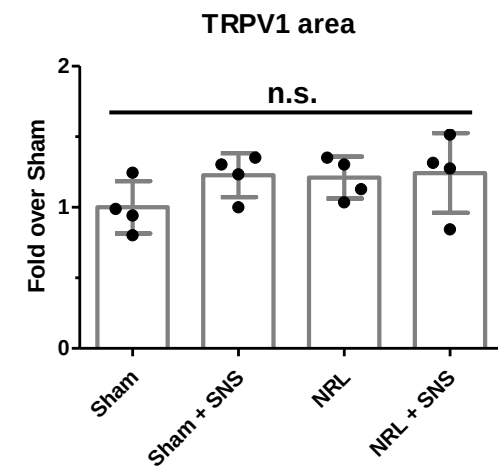
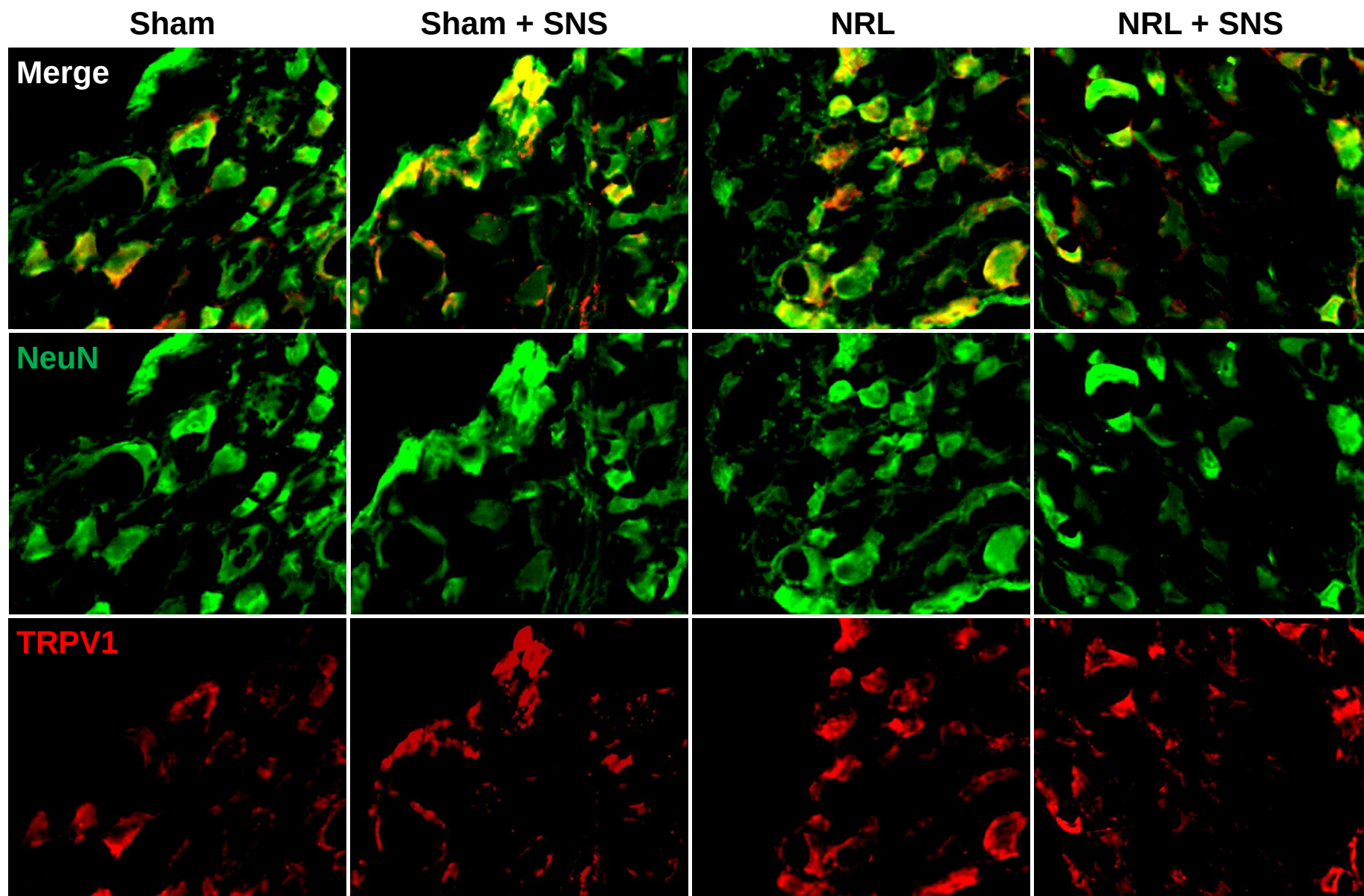
Supplementary figure S1 Contralateral mechanical and thermal pain behavioral results.



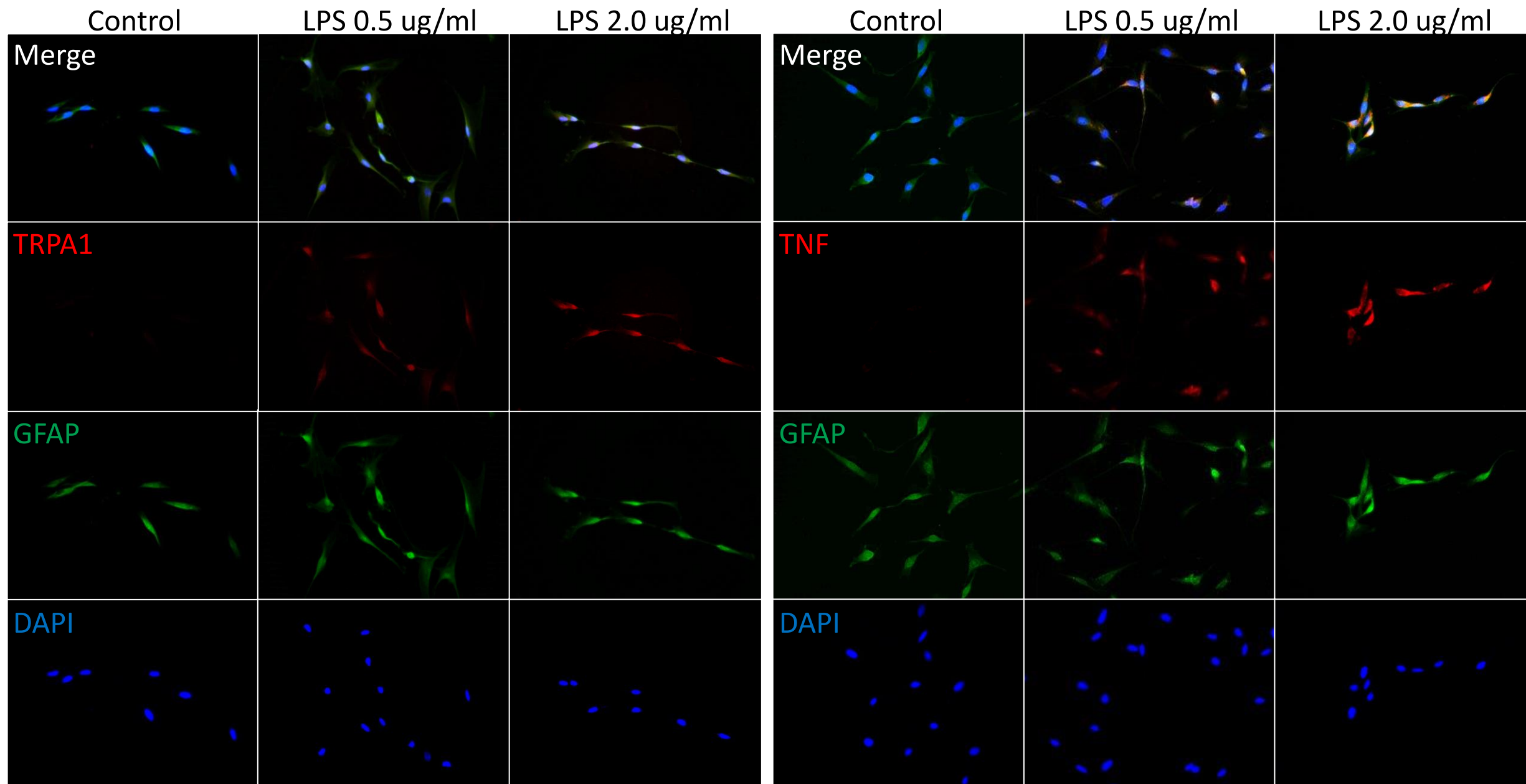
Supplementary figure S2 The mRNA levels of genes associated with injury of primary afferent neurons and neuropathic pain quantified by nanostring nCounter assay.



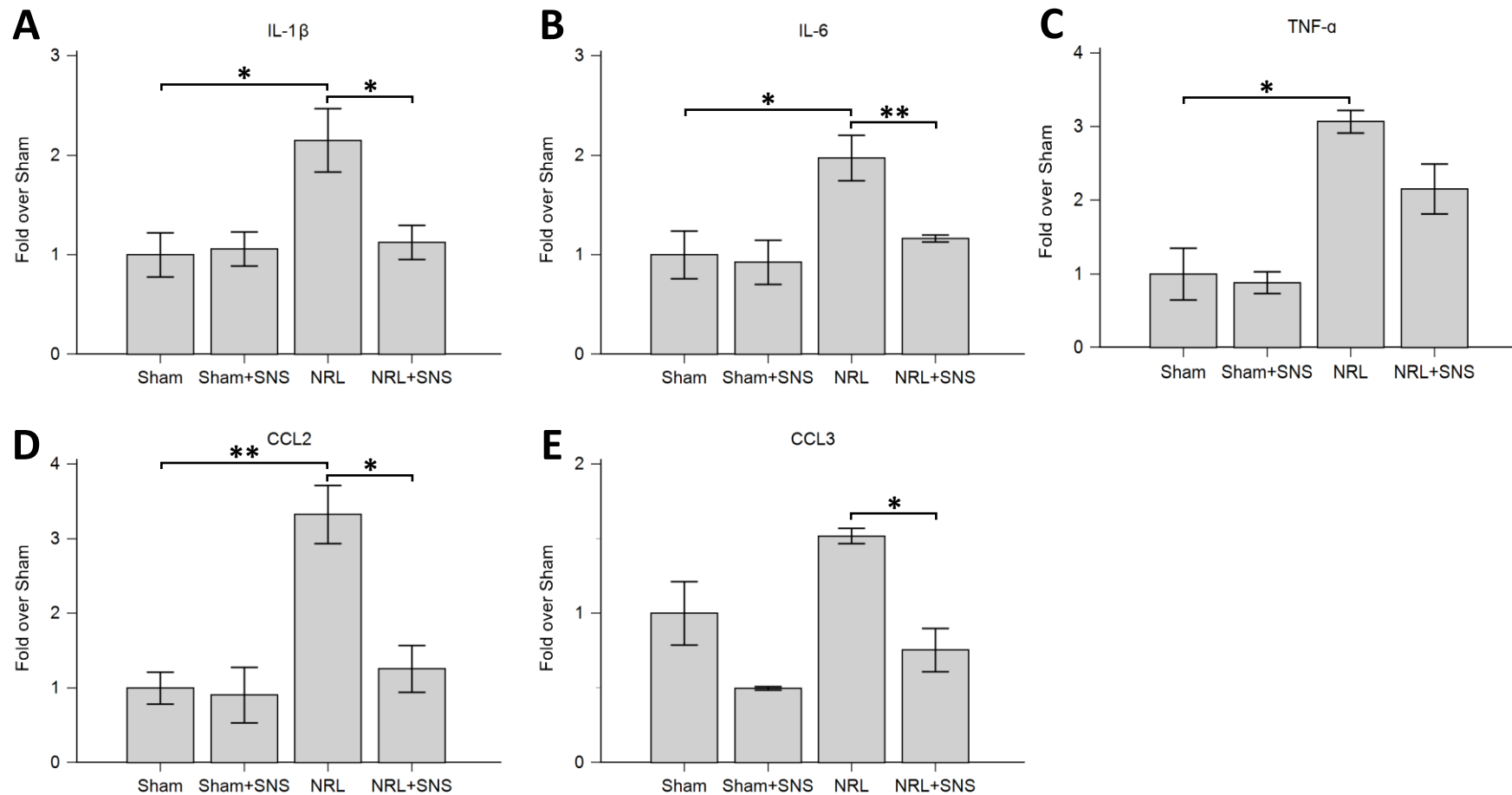
Supplementary figure S3 Regression analysis of pain behavior threshold and genes associated with neuropathic pain.



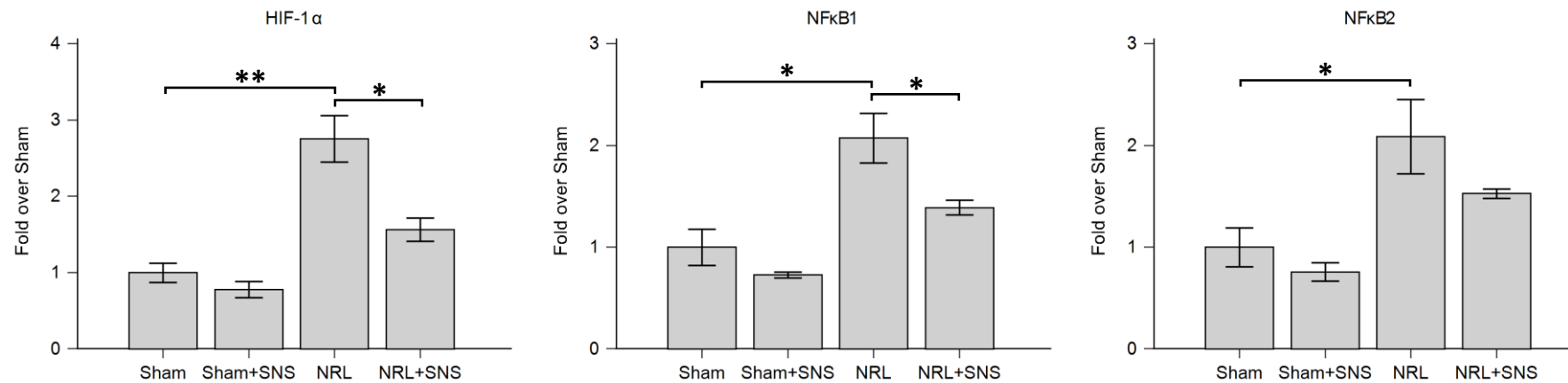
Supplementary figure S4 Immunofluorescence of TRPV1 and NeuN in DRG



Supplementary figure S5 Immunofluorescence of TRPA1, TNF, and GFAP in cultured SGCs treated with LPS



Supplementary figure S6 The mRNA levels of cytokines involved in the interactions between the infiltrating macrophages and satellite glial cells in the DRG quantified by nanostring nCounter assay.



Supplementary figure S7 The mRNA levels of genes associated with activated satellite glial cell and neuropathic pain quantified by nanostring nCounter assay.