

**Table 1 Statistical report**

	TEST USED	Animal		DESCRIPTIVE STATS (AVERAGE, VARIANCE)		P VALUE	DEGREE OF FREEDOM & F/t/z/R/ETC VALUE	E value
FIGURE NUMBER	WHICH TEST?	EXACT VALUE	DEFINED?	Mean	SD	EXACT VALUE	VALUE	E value
Fig.1A	One-way ANOVA Bonferroni post hoc	8	Adult male mice (8-10 weeks)	-24.68125 -33.66875 -30.32 -28.975 -35.18375 -34.73875 -30.2475 -22.64375	20.6424 31.76186 27.4817 31.49203 27.6097 34.97856 26.89575 20.3996	P<0.0001	F (7, 56) = 104.9	14
Fig. 1B	One-way ANOVA Bonferroni post hoc	8	Adult male mice (8-10 weeks)	300 20.25 39.25 41.63 45.38 53.13 60 64.25 70.25 66.88 74.13 78.25 80.13 89.38	0 11.88 22.86 20.6 16.67 15.93 14.86 12.06 9.633 11.84 10.03 10.9 9.891 9.561	P<0.0001	F (13, 98) = 190.1	14

Fig.1C	One-way ANOVA Bonferroni post hoc	8	Adult male mice (8-10 weeks)	0.99 3.878 1.663 0.5138 0.05 0.04125 0.1075 0.1238 0.1063 0.1388 0.14 0.175 0.2263 0.2463	0.2286 0.8536 0.3682 0.1608 0.03817 0.03227 0.06541 0.02774 0.06413 0.06081 0.05855 0.09165 0.09782 0.09273	P<0.0001	F (13, 98) = 124.1	14
Fig.1D	One-way ANOVA Bonferroni post hoc	8	Adult male mice (8-10 weeks)	10.66 17.47 10.53 7.73 5.444 4.705 6.23 5.285 6.436 6.221 7.228 8.343 9.19 10.18	0.5838 1.581 1.349 0.8462 0.6968 0.9036 0.8362 1.362 0.7654 0.9818 1.345 1.041 0.6317 0.7216	P<0.0001	F (13, 98) = 84.14	14

Fig.2A	One-way ANOVA Bonferroni post hoc	6,6,6,6	Adult male mice (8-10 weeks)	Naïve -7.5 -7.966667 -7.916667 -7.9 -8 Sham -7.5 -7.983334 -7.95 -7.816667 -8.05 sham+vehicle -7.5 -8.016666 -8.05 -7.883333 -7.866667 sham+MaR1 -7.5 -7.816667 -7.933333 -7.883333 -7.933333	Naïve 0 0.2581988 0.3125168 0.1673322 0.3033149 Sham 0 0.2041243 0.3449639 0.2639445 0.3146426 sham+vehicle 0 0.3488075 0.2880971 0.3710345 0.3011091 sham+MaR1 0 0.2639444 0.2943921 0.2483277 0.350238	P=0.9757	F (12, 100) = 0.3548	20
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Fig.2B	One-way ANOVA Bonferroni post hoc	6,6,6,6	Adult male mice (8-10 weeks)	Na ïve 300.5 300.5 302 303.5 300.8333 Sham 300.3333 300.5 302.8333 301.8333 301.6667 sham+vehicle 300.6667 301.3333 302 303 302.1667 sham+MaR1 300.8333 301.3333 302.8333 301.6667 299.6667	Na ïve 3.271086 1.643168 1.67332 2.428992 3.188521 Sham 2.160247 0.83666 0.7527726 2.483277 2.42212 sham+vehicle 2.33809 1.75119 1.67332 1.788854 1.47196 sham+MaR1 2.041241 1.032796 1.169045 2.581989 1.861899	P=0.6554	F (12, 100) = 0.7942	20
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Fig.2C	One-way ANOVA Bonferroni post hoc	6,6,6,6	Adult male mice (8-10 weeks)	Naïve 0.9933333 1.025 1.055 1.108333 1.01 Sham 0.9933333 0.9566666 1.063333 1.016667 1.1 sham+vehicle 0.9933333 0.9716666 1.031667 1.04 0.9866667 sham+MaR1 0.9933333 0.9866667 0.9866667 1.055 1.016667	Naïve 0.2703824 0.1873766 0.1930544 0.2115104 0.07348467 Sham 0.2703824 0.2024516 0.1364795 0.2301883 0.09295157 sham+vehicle 0.2703824 0.2694748 0.1637579 0.09295157 0.2192411 sham+MaR1 0.2703824 0.2192411 0.2192411 0.1930544 0.2301883	P=0.9994	F (12, 100) = 0.1620	20
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Fig.2D	One-way ANOVA, Bonferroni post hoc	6,6,6,6	Adult male mice (8-10 weeks)	Na ïve 10.14833 9.991667 9.993334 10.38833 10.25833 Sham 10.45 10.17833 10.26 10.11667 10.05 sham+vehicle 10.375 10.36 10.40833 10.25167 10.32167 sham+MaR1 10.63167 10.48667 10.38 10.28667 10.04833	Na ïve 0.5438903 0.3969592 0.1901229 0.4056315 0.6670957 Sham 0.4258168 0.1720949 0.4353848 0.1351543 0.2068819 sham+vehicle 0.6155241 0.5092348 0.4234817 0.310639 0.4649481 sham+MaR1 0.4752859 0.3771827 0.3896667 0.2922101 0.4534055	P=0.5661	F (12, 100) = 0.8834	20
Fig.3C	One-way ANOVA Bonferroni post hoc	3,3,3,3,3,3,3	mouse DRG neuron	240.2 281.1 372.6 509.5 701.4 843.1 861.4	35.38 60.73 88.57 53.76 86.43 92.12 43.51	P<0.0001	F (6, 14) = 42.50	14

Fig.3D	One-way ANOVA Bonferroni post hoc	3,3,3,3,3,3	mouse DRG neuron	1.639 1.642 1.885 2.094 2.338 2.538 2.543	0.1035 0.1179 0.1102 0.1041 0.1652 0.1484 0.07485	P<0.0001	F (6, 14) = 31.19	14
Fig.3G	Unpaired T test	3,3	mouse DRG neuron	240.2 843.1 534.6 861.4 851.5	35.38 92.12 75.97 43.51 37.78	P=0.0110 P=0.7793	t=4.476, df=4 t=0.2998, df=4	
Fig.3G	One-way ANOVA Bonferroni post hoc	3,3,3,3,3	mouse DRG neuron	240.2 843.1 534.6 861.4 851.5	35.38 92.12 75.97 43.51 37.78	P<0.0001	F (4, 10) = 60.26	10
Fig.3H	Unpaired T test	3,3	mouse DRG neuron	1.639 2.538 2.321 2.543 2.535	0.1035 0.1484 0.1604 0.1749 0.1777	P=0.1594 P=0.9566	t=1.726, df=4 t=0.05790, df=4	

Fig.3H	One-way ANOVA Bonferroni post hoc	3,3,3,3,3	mouse DRG neuron	1.639 2.538 2.321 2.543 2.535	0.1035 0.1484 0.1604 0.1749 0.1777	P=0.0001	F (4, 10) = 18.89	10
Fig.4B	One-way ANOVA Bonferroni post hoc	12,12,12	Dorsal root ganglion	0 53.58 81.75	0 12.7 10.43	P<0.0001	F (2, 33) = 229.9	33
Fig.4D	One-way ANOVA Bonferroni post hoc	12,12,12	Dorsal root ganglion	14.17 6.083 3.917	2.823 2.392 1.881	P<0.0001	F (2, 33) = 60.98	33
Fig.4F	Unpaired T test	6,7	Muscle	53.65 67.85	4.254 7.64	P=0.0020	t=4.032, df=11	



Fig.4G	Two-way ANOVA Bonferroni post hoc	6,6,6	Adult male mice (8-10 weeks)	Vehicle -7.5 -80.38834 -65.775 -45.66667 -22.38167 -11.81333 MaR1 -7.5 -62.415 -44.305 -17.77333 -8.941667 -8.263333 NGF -7.5 -65.855 -49.57167 -20.11 -12.39167 -8.308333	Vehicle 0 6.971757 3.738585 8.480453 6.806333 3.760216 MaR1 0 5.310008 8.861524 3.454317 1.673946 1.20427 NGF 0 5.599031 9.253683 4.658961 3.188394 1.309418	P<0.0001	F (10, 90) = 7.832	15
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Fig.4H	Two-way ANOVA Bonferroni post hoc	6,6,6	Adult male mice (8-10 weeks)	Vehicle 300 20.16667 46 47.83333 49.5 52.83333 55.33333 70 78.83334 75 MaR1 300 48.33333 67 81.33334 103.8333 122.3333 134.5 145.6667 159.5 178.1667 NGF 300 49.83333 57.83333 71.83334 82.66666 104.5 120.3333 121.6667 151.3333 166.5	Vehicle 0 9.703951 22.56546 20.21303 17.24819 16.55798 12.53262 8.694826 9.174239 7.536578 MaR1 0 9.500877 10.8074 9.136009 14.07717 14.63785 16.71825 13.93796 10.91329 18.26928 NGF 0 9.907909 8.01041 9.703951 11.48332 19.42936 17.38582 15.39697 14.30618 18.76966	P<0.0001	F (18, 150) = 10.70	15
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Fig.4I	Two-way ANOVA Bonferroni post hoc	6,6,6	Adult male mice (8-10 weeks)	Vehicle 0.995 3.853333 1.696667 0.53 0.06 0.05666666 0.09666666 0.1016667 0.075 0.1316667 MaR1 0.9416667 3.388333 1.01 0.675 0.4816667 0.46 0.4966667 0.6566666 0.675 0.865 NGF 0.995 3.573333 0.9566666 0.53 0.2816667 0.2533333 0.1366667 0.12 0.115 0.2466667	Vehicle 0.1754708 0.4265521 0.4291698 0.1479189 0.03521363 0.03444803 0.03204164 0.02228602 0.03209361 0.03488075 MaR1 0.09389712 0.4916267 0.2470627 0.1756986 0.1449713 0.1764086 0.1790717 0.2003663 0.1756986 0.1259762 NGF 0.1754708 0.6625004 0.2024516 0.1479189 0.1202359 0.1165619 0.0273252 0.03464102 0.04806246 0.07814517	P<0.0001	F (18, 100) = 6.945	15
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Fig.4J	Two-way ANOVA Bonferroni post hoc	6,6,6	Adult male mice (8-10 weeks)	Vehicle 10.6 17.5 10.75 7.95 7.183333 4.966667 6.2 5.816667 6.35 6.2 MaR1 10.98333 15.85 8.316667 8.05 7.9 8.216667 8.966667 9.283333 9.183333 9.933333 NGF 10.38333 14.61667 7.866667 7.183333 5.966667 5.383333 5.883333 6.233334 6.8 7.216667	Vehicle 0.5291505 1.508642 1.723659 1.569395 1.321237 1.39523 1.2 1.074089 0.8871301 0.8763561 MaR1 0.5776388 1.593424 1.361494 1.100455 1.126055 1.330288 1.013246 0.8612007 0.8158838 0.7447597 NGF 0.457894 1.769086 1.214358 1.160029 1.376469 1.077806 0.7547628 0.7089899 0.9859005 0.9907911	P<0.0001	F (18, 150) = 5.896	15
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Fig.5A	Two-way ANOVA Bonferroni post hoc	6,6,6	Adult male mice (8-10 weeks)	Vehicle 1.048333 0.225 0.2283333 0.2366667 0.235 10 ng/ml MaR1 0.995 0.2216667 0.5116667 0.4083333 0.23 100 ng/ml MaR1 1.01 0.24 0.7516667 0.75 0.2483333	Vehicle 0.2143284 0.05504543 0.06013872 0.1038589 0.04806245 10 ng/ml MaR1 0.1754708 0.09558591 0.157406 0.1734839 0.1100909 100 ng/ml MaR1 0.2470627 0.08717798 0.2183041 0.2641212 0.07808115	P<0.0001	F (8, 75) = 5.193	15
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Fig.5B	Two-way ANOVA Bonferroni post hoc	6,6,6	Adult male mice (8-10 weeks)	Vehicle 10.56667 4.866667 4.85 5.1 5.016666 10 ng/ml MaR1 10.68333 4.9 6.883333 6.466667 4.8 100 ng/ml MaR1 10.53333 5.116667 8.516666 8.2 4.9	Vehicle 0.6918575 1.177568 1.127386 0.9777524 1.170328 10 ng/ml MaR1 0.9410987 0.9423376 1.228685 1.162182 0.6870226 100 ng/ml MaR1 0.6860515 0.9826835 1.307542 1.0583 0.8414273	P<0.0001	F (8, 75) = 5.018	15
Fig.5C	Unpaired T test	9,9	mouse DRG neuron	266.1 57.12	58.25 33.18	P<0.0001	t=9.353, df=16	
Fig.5F GFAP	Two-way ANOVA Bonferroni post hoc	4,4	Spinal Dorsal horn	Control 8.475 9.175 Ipsi 22.4 14.3	Control 2.707243 2.291106 Ipsi 5.303458 4.140048	P=0.0138	F (1, 3) = 27.13	12
Fig.5F GFAP vehicle	Unpaired T test	4,4	Spinal Dorsal horn	8.475 22.4	2.707 5.303	P=0.0034	t=4.677, df=6	

Fig.5F GFAP MaR1	paired T test	4,4	Spinal Dorsal horn	9.175 14.3	2.291 4.14	P=0.0201	t=4.532, df=3	
Fig.5F IBA1	Two-way ANOVA Bonferroni post hoc	4,4	Spinal Dorsal horn	Control 5.075 5.825 Ipsi 17.9 9.625	Control 1.517399 1.560716 Ipsi 3.939543 1.951709	P=0.0501	F (1, 3) = 10.12	12
Fig.5F IBA1 vehicle	Unpaired T test	4,5	Spinal Dorsal horn	5.075 17.9	1.517 3.94	P=0.0009	t=6.076, df=6	
Fig.5F IBA1 MaR1	Unpaired T test	4,6	Spinal Dorsal horn	5.825 9.625	1.561 1.952	P=0.0228	t=3.041, df=6	
Fig.5G IL-1 $\beta$	Two-way ANOVA Bonferroni post hoc	4,4	Spinal Dorsal horn	Control 1 1 Ipsi 18.35 8.3	Control 0.2684523 0.2786874 Ipsi 3.711693 1.766352	P=0.0366	F (1, 3) = 12.99	12
Fig.5G IL-1 $\beta$ vehicle	Unpaired T test	4,4	Spinal Dorsal horn	1 18.35	0.2685 3.712	p<0.0001	t=9.324, df=6	
Fig.5G IL-1 $\beta$ MaR1	Unpaired T test	4,4	Spinal Dorsal horn	1 8.3	0.2787 1.766	P=0.0002	t=8.165, df=6	

Fig.5G IL-6	Two-way ANOVA Bonferroni post hoc	4,4	Spinal Dorsal horn	Control 1 1 Ipsi 9.525 2.725	Control 0.222411 0.2099206 Ipsi 1.652019 0.6751543	P=0.0032	F (1, 3) = 76.04	12
Fig.5G IL-6 vehicle	Unpaired T test	4,4	Spinal Dorsal horn	1 9.525	0.2224 1.652	P<0.0001	t=10.23, df=6	
Fig.5G IL-6 MaR1	Unpaired T test	4,4	Spinal Dorsal horn	1 2.725	0.2099 0.6752	P=0.0028	t=4.880, df=6	
Fig.5G TNF	Two-way ANOVA Bonferroni post hoc	4,4	Spinal Dorsal horn	Control 1 1 Ipsi 2.7875 1.385	Control 0.3311596 0.284605 Ipsi 1.001977 0.53	P=0.0626	F (1, 3) = 8.400	12
Fig.5G TNF vehicle	Unpaired T test	4,4	Spinal Dorsal horn	1 2.788	0.3312 1.002	P=0.0147	t=3.388, df=6	
Fig.5G TNF MaR1	Unpaired T test	4,4	Spinal Dorsal horn	1 1.385	0.2846 0.53	P=0.2478	t=1.280, df=6	



Fig.6A	Two-way ANOVA Bonferroni post hoc	6,6,6	Adult male mice (8-10 weeks)	Vehicle 0.9566666 0.7383333 0.81 0.9416667 0.9566666 0.995 MaR1 0.9416667 0.7716666 0.865 0.9416667 0.995 1.0333333 NGF 1.01 0.2566667 0.2883333 0.4083333 0.5116667 0.5583333	Vehicle 0.2024516 0.1281276 0.1372589 0.09389712 0.2024516 0.1754708 MaR1 0.09389712 0.1096206 0.1259762 0.09389712 0.1754708 0.1306394 NGF 0.2470627 0.09244818 0.1252863 0.1633911 0.157406 0.1772475	P<0.0001	F (10, 90) = 4.676	15
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Fig.6B	Two-way ANOVA Bonferroni post hoc	6,6,6	Adult male mice (8-10 weeks)	Vehicle 10.33333 9.75 10.15 10.65 10.41667 MaR1 10.95 9.916667 10.3 11.18333 10.8 NGF 10.23333 6.333333 6.6 7.166667 7.783333	Vehicle 1.04435 1.021273 0.8408331 0.5958188 0.6524312 MaR1 0.8264382 0.8565434 0.6260989 0.6047039 0.7874008 NGF 0.861781 1.298717 0.9715967 0.8617812 0.6645801	P<0.0001	F (8, 75) = 5.416	15
Fig.6D AKT	One-way ANOVA Bonferroni post hoc	3,3,3	ND7/23 cells	p-AKT/GAPDH 1 1.972 1.565	p-AKT/GAPDH 0.3109 0.6122 0.2522	P=0.0784 P=0.9111 P=0.0400	F (2, 6) = 4.010 F (2, 6) = 0.09458 F (2, 6) = 5.772	
Fig.6D AKT	paired T test Unpaired T test	3,3	ND7/23 cells	AKT/GAPDH 1 1.025 0.9829 p-AKT/AKT 1 1.861 1.57	AKT/GAPDH 0.1356 0.1524 0.03843 p-AKT/AKT 1 1.861 1.57	P=0.0391 P=0.0354 P=0.8408 P=0.8443 P=0.0300 P=0.0489	t=4.910, df=2 t=2.445, df=4 t=0.2144, df=4 t=0.2095, df=4 t=3.296, df=4 t=2.152, df=4	

Fig.6D ERK	One-way ANOVA Bonferroni post hoc	3,3,3	ND7/23 cells	p-ERK/GAPDH 1 1.153 3.115 ERK/GAPDH 1 0.7987 0.8331	p-ERK/GAPDH 0.1653 0.2911 0.4435 ERK/GAPDH 0.4765 0.1648 0.1313	P=0.0003 P=0.6965 P=0.0075	F (2, 6) = 40.55 F (2, 6) = 0.3845 F (2, 6) = 12.33	
Fig.6D ERK	Unpaired T test	3,3	ND7/23 cells	p-ERK/ERK 1 1.223 3.273	p-ERK/ERK 0.4746 0.1107 0.953	P=0.4731 P=0.0015 P=0.5273 P=0.5900 P=0.4733 P=0.0209	t=0.7913, df=4 t=7.741, df=4 t=0.6916, df=4 t=0.5850, df=4 t=0.7908, df=4 t=3.697, df=4	
Fig.6F mTOR	One-way ANOVA Bonferroni post hoc	3,3,3	ND7/23 cells	p-mTOR/GAPDH 1 2.067 1.297 mTOR/GAPDH 1 0.9743 1.088	p-mTOR/GAPDH 0.8863 0.806 0.6194 mTOR/GAPDH 0.4299 0.3777 0.3092	P=0.2962 P=0.9275 P=0.1381	F (2, 6) = 1.501 F (2, 6) = 0.07625 F (2, 6) = 2.804	
Fig.6F mTOR	paired T test Unpaired T test	3,3	ND7/23 cells	p-mTOR/mTOR 1 2.255 1.21	p-mTOR/mTOR 0.774 0.7614 0.5202	P=0.0136 P=0.2047 P=0.9418 P=0.7867 P=0.0047 P=0.1963	t=5.946, df=2 t=1.035, df=2 t=0.07773, df=4 t=0.2893, df=4 t=10.20, df=2 t=1.082, df=2	

Fig.6F PI3K	One-way ANOVA Bonferroni post hoc	3,3,3	ND7/23 cells	p-PI3K/GAPDH 1 1.877 1.236	p-PI3K/GAPDH 0.176 0.5217 0.4909	P=0.1029 P=0.9718 P=0.0186	F (2, 6) = 3.402 F (2, 6) = 0.02872 F (2, 6) = 8.319	
Fig.6F PI3K	paired T test Unpaired T test	3,3	ND7/23 cells	PI3K/GAPDH 1 0.9868 1.009 p-PI3K/PI3K 1 1.89 1.206	PI3K/GAPDH 0.08996 0.1027 0.1401 p-PI3K/PI3K 0.09104 0.3604 0.3111	P=0.0483 P=0.3005 P=0.8754 P=0.9315 P=0.0143 P=0.3317	t=4.382, df=2 t=0.6152, df=2 t=0.1671, df=4 t=0.09145, df=4 t=4.148, df=4 t=1.103, df=4	
Fig.6H p-AKT/AKT	One-way ANOVA Bonferroni post hoc	3,3,3	mouse DRG neuron	1 1.341 1.600	0.2792 0.125 0.1249	p=0.0235	F (2, 6) = 7.476	6
	paired T test Unpaired T test	3,3,3	mouse DRG neuron			p=0.3337 p=0.0273	t=1.932, df=4 t=3.400, df=4	
Fig.6H p-mTOR/TOR	One-way ANOVA Bonferroni post hoc	3,3,3	mouse DRG neuron	1 1.171 1.872	0.3503 0.1094 0.2684	p=0.0145	F (2, 6) = 9.302	6
	paired T test Unpaired T test	3,3,3	mouse DRG neuron			p=0.4646 p=0.0267	t=0.8076, df=4 t=3.424, df=4	
Fig.6H p-PI3K/PI3K	One-way ANOVA Bonferroni post hoc	3,3,3	mouse DRG neuron	1 0.8478 2.383	0.2845 0.1661 0.2425	p=0.0004	F (2, 6) = 38.49	6
	paired T test Unpaired T test	3,3,3	mouse DRG neuron			p=0.4684 p=0.0030	t=0.8002, df=4 t=6.408, df=4	

Fig.6H p-ERK/ERK	One-way ANOVA Bonferroni post hoc	3,3,3	mouse DRG neuron	1	0.1318	p=0.0154	F (2, 6) = 9.064	6
	paired T test Unpaired T test	3,3,3	mouse DRG neuron	1.499 1.148	0.1586 0.1502	p=0.0138 p=0.2682	t=4.188, df=4 t=1.285, df=4	
Fig. S2A	One-way ANOVA Bonferroni post hoc	3,3,3,3,3,3	mouse DRG neuron	240.3 289.4 531.4 679.6 841.4 828.1	31.6 85.14 81.82 53.43 96.35 14.9	P<0.0001	F (5, 12) = 44.99	12
Fig. S2B	One-way ANOVA Bonferroni post hoc	3,3,3,3,3,3	mouse DRG neuron	1.639 1.827 2.303 2.518 2.515 2.503	0.1035 0.09296 0.2157 0.2245 0.114 0.1632	P<0.0001	F (5, 12) = 17.44	12