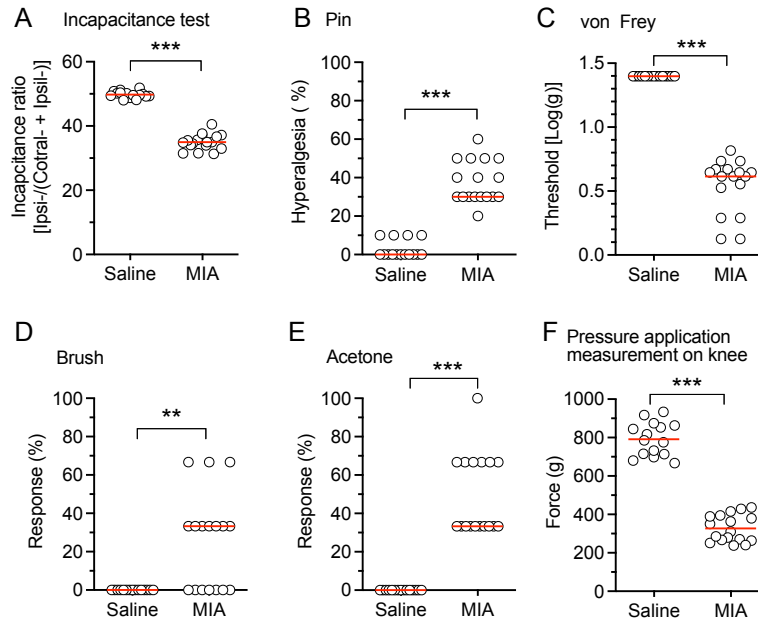


Supplementary Figure 1, Behavioral test



**Supplementary Table 1.** Detailed statistic results.

**Table 1-A.** Statistics for **Supplementary Figure 1.**

	Experimental Test	Statistical test	P value
Suppl Fig.1A	Incapacitance test	Parametric t-test	<0.0001
Suppl Fig.1B	Pin test	Nonparametric test (Mann–Whitney test)	<0.0001
Suppl Fig.1C	von Frey	Parametric t-test	<0.0001
Suppl Fig.1D	Brush	Nonparametric test (Mann–Whitney test)	=0.0078
Suppl Fig.1E	Acetone	Nonparametric test (Mann–Whitney test)	<0.0001
Suppl Fig.1F	Pressure application	Parametric t-test	<0.0001

**Table 1-B.** Statistics for **Figure 1.**

	Experimental Test	Statistical test	P value
Fig. 1B	SA incidence	Chi-square	0.0034
Fig. 1C	SA#/bundle	Nonparametric test (Mann–Whitney test)	0.0003
Fig. 1D	Frequency of SA	Parametric t-test	0.0114
Fig. 1J	SA incidence	Chi-square	<0.0001

**Table 1-C.** Statistics for **Figure 2.**

	Statistical test		P value
Fig. 2B saline treatment	Nonparametric 1-way repeated measure ANOVA (Friedman test)	Friedman test, P<0.0001	Pre- vs during, P<0.0001; Post- vs during, P<0.0001;
Fig. 2C MIA injection	Nonparametric 1-way repeated measure ANOVA (Friedman test)	Friedman test, P<0.0001	Pre- vs during, P<0.0001; Post- vs during, P<0.0001;

**Table 1-D.** Statistics for **Figure 3.**

	Statistical test	Time (before and after GFS)	Treatment (saline vs MIA)	Interaction	P value
Fig. 3E, knee pinch	2-way repeated measure ANOVA	$F_{(1, 28)} = 10.39$ , P=0.0032	$F_{(1, 27)} = 0.07887$ , P=0.781	$F_{(1, 27)} = 12.43$ , P=0.0015	Before and after GFS, P=0.0064 in saline group; Before and after GFS, P=0.0064 in MIA group;
Fig. 3F, knee bend	2-way repeated measure ANOVA	$F_{(1, 18)} = 8.622$ , P=0.0088	$F_{(1, 18)} = 0.0108$ , P=0.9184	$F_{(1, 18)} = 1.669$ , P=0.2127	Before and after GFS, P=0.011 in MIA group
Fig. 3G, knee pinch	2-way repeated	$F_{(1, 46)} = 0.7555$ , P=0.3892	$F_{(1, 46)} = 53.53$ , P<0.0001	$F_{(1, 46)} = 0.359$ , P=0.5520	Before and after GFS, P<0.0001 in saline group;

	measure ANOVA				Before and after GFS, P<0.0001 in MIA group;
Fig. 3H, knee bend	2-way repeated measure ANOVA	F <sub>(1, 45)</sub> = 87.76, P<0.0001	F <sub>(1, 45)</sub> = 7.64, P=0.0082	F <sub>(1, 45)</sub> = 5.439, P=0.0242	Before and after GFS, P<0.0001 in saline group; Before and after GFS, P<0.0001 in MIA group;

**Table 1-E. Statistics for Figure 4.**

	Experimental Test	Statistical test	P value
Fig. 4D	von Frey threshold inducing AP	t-test	0.0003

**Table 1-F. Statistics for Figure 5.**

	Statistical test	Time (before and after GFS)	Treatment (saline vs MIA)	Interaction	P value
Fig. 5B, L4 paw threshold	2-way repeated measure ANOVA	F <sub>(1, 32)</sub> = 22.22, P<0.0001	F <sub>(1, 32)</sub> = 58.18, P<0.0001	F <sub>(1, 32)</sub> = 28.18, P<0.0001	Before and after GFS, P<0.0001 in MIA group; Before GFS, saline vs MIA P<0.0001.
Fig. 5C	t-test				P<0.0001

**Table 1-G. Statistics for Figure 6.**

	Statistical test	Time (before and after GFS)	Treatment (saline vs MIA)	Interaction	P value
Fig. 6C, vF 8g	2-way repeated measure ANOVA	F <sub>(1, 17)</sub> = 27.24, P<0.0001	F <sub>(1, 17)</sub> = 1.01, P=0.3289	F <sub>(1, 27)</sub> = 12.43, P=0.0015	Before and after GFS, P<0.0001 in MIA group;
Fig. 6D, vF 16g	2-way repeated measure ANOVA	F <sub>(1, 23)</sub> = 46.78, P<0.0001	F <sub>(1, 23)</sub> = 1.582, P=0.2211	F <sub>(1, 23)</sub> = 1.035, P=0.0142	Before and after GFS, P=0.0013 in saline group; Before and after GFS, P<0.0001 in MIA group
Fig. 6E, vF 29g	2-way repeated measure ANOVA	F <sub>(1, 25)</sub> = 61.37, P<0.0001	F <sub>(1, 25)</sub> = 1.286, P=0.2675	F <sub>(1, 25)</sub> = 2.742, P=0.1102	Before and after GFS, P=0.0013 in saline group; Before and after GFS, P<0.0001 in MIA group

Fig. 6F, mvF 29g	2-way repeated measure ANOVA	$F_{(1, 23)} = 64,$ $P < 0.0001$	$F_{(1, 23)} = 3.082,$ $P = 0.2706$	$F_{(1, 23)} =$ $3.082,$ $P = 0.0925$	Before and after GFS, $P = 0.0003$ in saline group; Before and after GFS, $P < 0.0001$ in MIA group;
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**Table 1-H.** Statistics for **Figure 7.**

	Experimental Test	Statistical test	P value
Fig. 7E	SA incidence	Chi-square	<0.0001

**Table 1-I.** Statistics for **Figure 8.**

	Experimental Test	Statistical test	P value
Fig. 8C	SA incidence	Chi-square	0.003
Fig. 8D saline treatment	Nonparametric 1-way repeated measure ANOVA (Friedman test)	Friedman test, $P < 0.0001$	Pre- vs during, $P = 0.0001;$