

Supplemental Table2-1 Statistical summary and analysis methods

Figure reported	N				Nor m. dist? *	Homogeneity of Variances?#	Statistic	Statistic value (df)	p value	Variance source	Post hoc test	Post hoc p	Mean differe nce	Lower 95% CI	Upper 95% CI	
	I	II	III	IV												
Fig. 1A Zea-Longa score	10	10	1 0	1 0	No	No	Kruskal-Wallis test	KW=35.75	<0.0001	Difference						
											A VS B	Dunn's	0.0026	-17		
											A VS C	Dunn's	> 0.9999	0.000		
											A VS D	Dunn's	< 0.0001	-23		
											B VS C	Dunn's	0.0026	17		
											B VS D	Dunn's	> 0.9999	-6		
Fig. 1D TTC staining	6	6	6	6	Yes	No	one-way ANOVA	F(3,20)=290.7	<0.0001	Difference						
											A VS B	Tukey	< 0.0001	-1	-1.176	-0.8236
											A VS C	Tukey	> 0.9999	0.000	-0.1764	0.1764
											A VS D	Tukey	< 0.0001	-1.525	-1.701	-1.348
											B VS C	Tukey	< 0.0001	1	0.8236	1.176
											B VS D	Tukey	< 0.0001	-0.524	-0.7012	-0.3485
Fig. 2A Western blot(GSDMD)	4	4	4	4	Yes	Yes	one-way ANOVA	F (3, 12) = 178.6	<0.001	Difference						
											A VS B	Tukey	< 0.0001	-0.628 2	-0.7999	0.4564
											A VS C	Tukey	0.4649	-0.087	-0.2587	0.0847
											A VS D	Tukey	< 0.0001	-1.18	-1.352	-1.008
											B VS C	Tukey	< 0.0001	0.5412	0.3694	0.7129
											B VS D	Tukey	< 0.0001	-0.551 8	-0.7235	-0.3801
Fig. 2A Western blot(GSDMD-N)	3	3	3	3	Yes	Yes	one-way ANOVA	F (3, 8) = 69	<0.001	Difference						
											A VS B	Tukey	0.0006	-0.664 1	-0.9764	0.3519
											A VS C	Tukey	0.9918	-0.027 26	-0.3395	0.2850
											A VS D	Tukey	< 0.0001	-1.198	-1.51	-0.8855
											B VS C	Tukey	0.0008	0.6369	0.3246	0.9491
											B VS D	Tukey	0.0026	-0.533 7	-0.8459	-0.2214
Fig. 2B qRT-PCR(GSDMD)	4	4	4	4	Yes	Yes	one-way ANOVA	F (3, 12) = 592	<0.001	Difference						
											A VS B	Tukey	< 0.0001	-1.221	-1.552	-0.8898

											A VS C	Tukey	0.1189	-0.2736	-0.6045	0.0573
											A VS D	Tukey	< 0.0001	-4.188	-4.519	-3.857
											B VS C	Tukey	< 0.0001	0.9471	0.6162	1.278
											B VS D	Tukey	< 0.0001	-2.967	-3.298	-2.636
											C VS D	Tukey	< 0.0001	-3.914	-4.245	-3.683
Fig. 2D Immunofluorescence staining (GSDMD)	5	5	5	5	Yes	Yes	one-way ANOVA	$F(3,16) = 1180$	<0.0001	Difference						
											A VS B	Tukey	< 0.0001	-12.8	-14.42	-11.18
											A VS C	Tukey	0.5090	-0.8	-2.418	0.8184
											A VS D	Tukey	< 0.0001	-29.4	-31.02	-27.78
											B VS C	Tukey	< 0.0001	12	10.38	13.62
											B VS D	Tukey	< 0.0001	-16.6	-18.22	-14.98
											C VS D	Tukey	< 0.0001	-28.6	-30.22	-26.98
Fig. 4A Western blot(NLRP3)	3	3	3	3	Yes	Yes	one-way ANOVA	$F(3, 8) = 139$	<0.001	Difference						
											A VS B	Tukey	< 0.0001	-0.3382	-0.4152	0.2612
											A VS C	Tukey	0.0341	-0.0835	-0.1606	-0.0065
											A VS D	Tukey	< 0.0001	-0.42	-0.4970	-0.3430
											B VS C	Tukey	< 0.0001	0.2546	0.1776	0.3317
											B VS D	Tukey	0.0379	-0.0817	-0.1588	-0.0047
											C VS D	Tukey	< 0.0001	-0.3364	-0.4134	-0.2594
Fig. 4A Western blot(Pro-caspase1)	4	4	4	4	Yes	Yes	one-way ANOVA	$F(3, 12)=92.23$	<0.001	Difference						
											A VS B	Tukey	< 0.0001	-0.1448	-0.1992	0.0904
											A VS C	Tukey	0.6017	-0.0231	-0.0774	-0.0312
											A VS D	Tukey	< 0.0001	-0.2698	-0.3241	-0.2154
											B VS C	Tukey	0.0001	0.1217	0.0673	0.1761
											B VS D	Tukey	< 0.0001	-0.12449	-0.1793	-0.0705
											C VS D	Tukey	< 0.0001	-0.2466	-0.3010	-0.1923
Fig. 4A Western blot(Cleaved caspase1)	4	4	4	4	Yes	No	one-way ANOVA	$F(3, 12)=584.8$	<0.001	Difference						
											A VS B	Tukey	< 0.0001	-0.4422	-0.5111	-0.3733
											A VS C	Tukey	0.4546	-0.0353	-0.1043	0.0335
											A VS D	Tukey	< 0.0001	-0.8441	-0.9131	-0.7752
											B VS C	Tukey	< 0.0001	0.4069	0.3379	0.4758
											B VS D	Tukey	< 0.0001	-0.401	-0.4708	-0.3330

Fig. 4A Western blot(IL-18)	4	4	4	4	Yes	No	one-way ANOVA	$F(3, 12)=172.1$	<0.001	C VS D	Tukey	< 0.0001	9 -0.808 8	-0.8777	-0.7399
										Difference					
										A VS B	Tukey	< 0.0001	-0.151 6	-0.1907	-0.1124
										A VS C	Tukey	0.0640	-0.037 24	-0.0763	0.0018
										A VS D	Tukey	< 0.0001	-0.270 7	-0.3098	-0.2316
										B VS C	Tukey	< 0.0001	0.1143	0.07521	0.1535
										B VS D	Tukey	< 0.0001	-0.119 1	-0.1583	-0.0800
Fig. 4A Western blot(IL-1 β)	4	4	4	4	Yes	No	one-way ANOVA	$F(3, 12)=229.2$	<0.001	C VS D	Tukey	< 0.0001	-0.233 5	-0.2726	-0.1943
										Difference					
										A VS B	Tukey	< 0.0001	-0.352 2	-0.4344	-0.2701
										A VS C	Tukey	0.9277	-0.016 81	-0.0989	0.0653
										A VS D	Tukey	< 0.0001	-0.618 7	-0.7008	-0.5365
										B VS C	Tukey	< 0.0001	0.3354	0.2532	0.4176
										B VS D	Tukey	< 0.0001	-0.266 5	-0.3486	-0.1843
Fig. 4B qRT-PCR NLRP3 mRNA	4	4	4	4	Yes	No	one-way ANOVA	$F(3, 12)=108.1$	<0.001	C VS D	Tukey	< 0.0001	-0.601 9	-0.6840	-0.5197
										Difference					
										A VS B	Tukey	0.0013	-1.131	-1.792	-0.4693
										A VS C	Tukey	0.3086	-0.406 8	-1.068	0.2546
										A VS D	Tukey	< 0.0001	-3.651	-4.313	-2.99
										B VS C	Tukey	0.0307	0.7239	0.06248	1.385
										B VS D	Tukey	< 0.0001	-2.52	-3.182	-1.859
Fig. 4D Immunofluorescence staining(NLRP3)	5	5	5	5	Yes	Yes	one-way ANOVA	$F(3, 16)=1398$	<0.0001	C VS D	Tukey	< 0.0001	-3.244	-3.906	-2.583
										Difference					
										A VS B	Tukey	< 0.0001	-12.8	-14.37	-11.23
										A VS C	Tukey	0.9999	-0.000	-1.567	1.567
										A VS D	Tukey	< 0.0001	-30.6	-32,17	-29.03
										B VS C	Tukey	< 0.0001	12.8	11.23	14.37
										B VS D	Tukey	< 0.0001	-17.8	-19.37	-16.23
Fig. 6A Western blot(AGEs)	3	3	3	3	Yes	Yes	one-way ANOVA	$F(3, 8)=121.3$	<0.001	C VS D	Tukey	< 0.0001	-30.6	-32.17	-29.03
										Difference					
										A VS B	Tukey	< 0.0001	-0.891	-1.171	-0.6127

Fig. 6A Western blot(RAGE)	4	4	4	4	Yes	Yes	one-way ANOVA	$F(3, 12)=25.29$	<0.001	Difference	A VS C	Tukey	0.0012	8 -0.535 9	-0.8150	-0.2569											
											A VS D	Tukey	< 0.0001	-1.618	-1.897	-1.339											
											B VS C	Tukey	0.0149	0.3558	0.07675	0.6349											
											B VS D	Tukey		-0.726 4	-1.005	-0.4473											
											C VS D	Tukey	< 0.0001	-1.082	-1.361	-0.8032											
											A VS B	Tukey	0.0016	-0.472 5	-0.7538	-0.1912											
											A VS C	Tukey	0.0337	-0.302 9	-0.5842	-0.0215											
											A VS D	Tukey	< 0.0001	-0.807 4	-1.089	-0.526											
											B VS C	Tukey	0.3243	0.1696	-0.1117	0.4509											
											B VS D	Tukey	0.0186	-0.334 9	-0.6162	-0.0535											
Fig. 6B qRT-PCR RAGE mRNA	4	4	4	4	Yes	No	one-way ANOVA	$F(3, 12)=449.2$	<0.001	Difference	C VS D	Tukey	0.0009	-0.504 5	-0.7858	-0.2232											
											A VS B	Tukey	< 0.0001	-3.757	-4.249	-3.264											
											A VS C	Tukey	< 0.0001	-1.128	-1.621	-0.6356											
											A VS D	Tukey	< 0.0001	-5.481	-5.974	-4.989											
											B VS C	Tukey	< 0.0001	2.628	2.135	3.121											
											B VS D	Tukey	< 0.0001	-1.725	-2.218	-1.232											
											C VS D	Tukey	< 0.0001	-4.353	-4.846	-3.86											
											Fig. 6D Immunohistochemical staining of RAGE IOD	5	5	5	5	Yes	Yes	one-way ANOVA	$F(3, 16)=395.1$	<0.001	Difference	A VS B	Tukey	< 0.0001	-0.144 0	-0.1621	-0.1259
																						A VS C	Tukey	< 0.0001	-0.074 9	-0.0920	0.0559
																						A VS D	Tukey	< 0.0001	-0.206	-0.2241	-0.1879
B VS C	Tukey	< 0.0001	0.0700 0	0.05191	0.0880																						
B VS D	Tukey	< 0.0001	-0.062 9	-0.0800	-0.0439																						
C VS D	Tukey	< 0.0001	-0.132	-0.1501	-0.1139																						

Note: I . WT Sham, II . WT MCAO, III. *Lepr*^{-/-} Sham, IV. *Lepr*^{-/-} MCAO. * Shapiro-Wilk test of normality. #Levene Statistic test of homogeneity of variances.

Supplemental Table2-2 Statistical summary and analysis methods

Figure reported	N			Nor m. dist? *	Homogeneity of Variances?#	Statistic	Statistic value (df)	p valu e	Variance source	Post hoc test	Post hoc p	Mean differen ce	Lower 95% CI	Uppe r 95% CI
	I	II	III											
Fig. 5A Zea-Longa score	10	10	10	No	No	Kruskal-Wallis test	KW=12.567	0.001 9	Difference					
									A VS B	Dunn's	>	-1.25		
									A VS C	Dunn's	0.012	10.25		
									B VS C	Dunn's	0.0037	11.5		
Fig. 5C Western blot(Pro-caspase1)	4	4	4	Yes	Yes	one-way ANOVA	F (2, 9) =188.4	<0.0 01	Difference					
									A VS B	Tukey	0.1656	0.0857	-0.033 4	0.205 0
									A VS C	Tukey	<	0.7568	0.6376	0.876
									B VS C	Tukey	<	0.6710	0.5518	0.790 2
Fig. 5C Western blot(Cleaved caspase1)	3	3	3	Yes	Yes	one-way ANOVA	F (2, 6) =554	<0.0 01	Difference					
									A VS B	Tukey	0.7133	-0.0254	-0.122 2	0.071 3
									A VS C	Tukey	<	0.78963	0.7995	0.993 1
									B VS C	Tukey	<	0.6710	0.8249	1.019
Fig. 5C Western blot(IL-18)	4	4	4	Yes	Yes	one-way ANOVA	F (2, 9) =27.7	<0.0 01	Difference					
									A VS B	Tukey	0.9675	0.02615	-0.271 7	0.324 0
									A VS C	Tukey	0.0003	0.7003	0.4025	0.998 1
									B VS C	Tukey	0.0004	0.6742	0.3764	0.972 0
Fig. 5C Western blot(IL-1 β)	3	3	3	Yes	Yes	one-way ANOVA	F (2, 6) =22.17	<0.0 01	Difference					
									A VS B	Tukey	0.8954	0.03344	-0.193 7	0.260 5
									A VS C	Tukey	0.0024	0.4426	0.2155	0.669 7
									B VS C	Tukey	0.0036	0.4091	0.1820	0.636 2
Fig. 5C Western blot(GSDMD)	3	3	3	Yes	Yes	one-way ANOVA	F (2, 6) =230.2	<0.0 01	Difference					
									A VS B	Tukey	0.5948	-0.0772 1	-0.310 5	0.156 1
									A VS C	Tukey	<	1.373	1.139	1.606

Fig. 5C Western blot(GSDMD-N)	3	3	3	Yes	Yes	one-way ANOVA	$F(2, 6) = 28.27$	<0.001	B VS C	Tukey	<0.0001	1.45	1.217	1.683				
									Difference				A VS B	Tukey	0.8855	-0.03534	-0.2638	0.1931
													A VS C	Tukey	0.0019	0.4663	0.2378	0.6947
													B VS C	Tukey	0.0013	0.5016	0.2731	0.7301

Note: I . *Lepr*^{-/-} MCAO, II . DMSO+ *Lepr*^{-/-} MCAO, III . MCC950+ *Lepr*^{-/-} MCAO. * Shapiro-Wilk test of normality. #Levene Statistic test of homogeneity of variances.

Supplemental Table2-3 Statistical summary and analysis methods

Figure reported	N			Norm. dist?*	Homogeneity of Variances?#	Statistic	Statistic value (df)	p value	Variance source	Post hoc test	Post hoc p	Mean difference	Lower 95% CI	Upper 95% CI
	I	II	III											
Fig. 7A Zea-Longa score	10	10	10	No	No	Kruskal-Wallis test	KW=13.596	0.0011	Difference					
									A VS B	Dunn's	>0.9999	0.000		
									A VS C	Dunn's	0.0042	11.4		
									B VS C	Dunn's	0.0042	11.4		
Fig. 7C Western blot(NLRP3)	4	4	4	Yes	Yes	one-way ANOVA	$F(2, 9) = 153.7$	<0.001	Difference					
									A VS B	Tukey	0.2417	-0.05374	-0.1397	0.0322
									A VS C	Tukey	<0.0001	0.4384	0.3524	0.5244
									B VS C	Tukey	<0.0001	0.4921	0.4061	0.5781
Fig. 7C Western blot(Pro-caspase1)	4	4	4	Yes	Yes	one-way ANOVA	$F(2, 9) = 224.9$	<0.001	Difference					
									A VS B	Tukey	0.9194	0.01097	-0.0670	0.0890
									A VS C	Tukey	<0.0001	0.5188	0.4408	0.5969
									B VS C	Tukey	<0.0001	0.5079	0.4298	0.5859

Fig. 8D Immunofluorescence staining(GSDMD)	5	5	5	Yes	Yes	one-way ANOVA	$F(2, 12) = 239.5$	<0.0001	Difference					
									A VS C	Tukey	<0.0001	0.6398	0.5580	0.7215
									B VS C	Tukey	<0.0001	0.5901	0.5083	0.6718
									A VS B	Tukey	0.1959	-0.04965	-0.1213	0.02199
									A VS C	Tukey	<0.0001	0.4823	0.4106	0.5539
B VS C	Tukey	<0.0001	0.5319	0.4603	0.6035									

Note: I. *Lepr*^{-/-} MCAO, II. *Lepr*^{-/-} MCAO+DMSO, III. *Lepr*^{-/-} MCAO+FPS-ZM1. * Shapiro-Wilk test of normality. #Levene Statistic test of homogeneity of variances.