

Figure S1 Original western blot results of (A) NLRP3 and β -actin (B) Caspase-1 and GAPDH (C) C-caspase-1 and β -actin, (D) IL-1 β and β -actin, (E) ASC and β -actin in mice spinal cords for Figure 3C-G, respectively

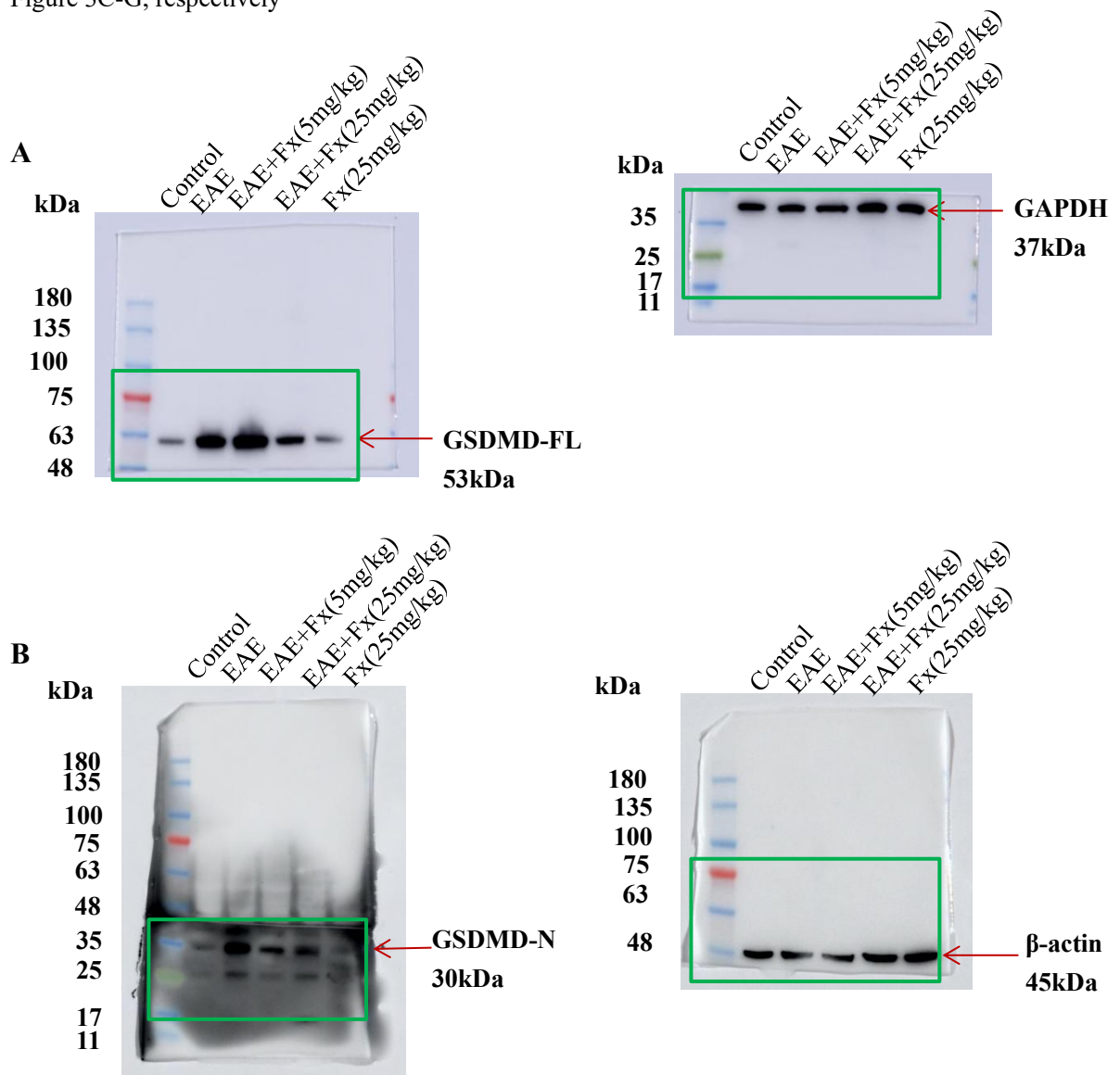


Figure. S2 Original western blot results of (A) GSDMD-FL and GAPDH (B) GSDMD-N and

β -actin in mice spinal cords for Figure 4C and D, respectively

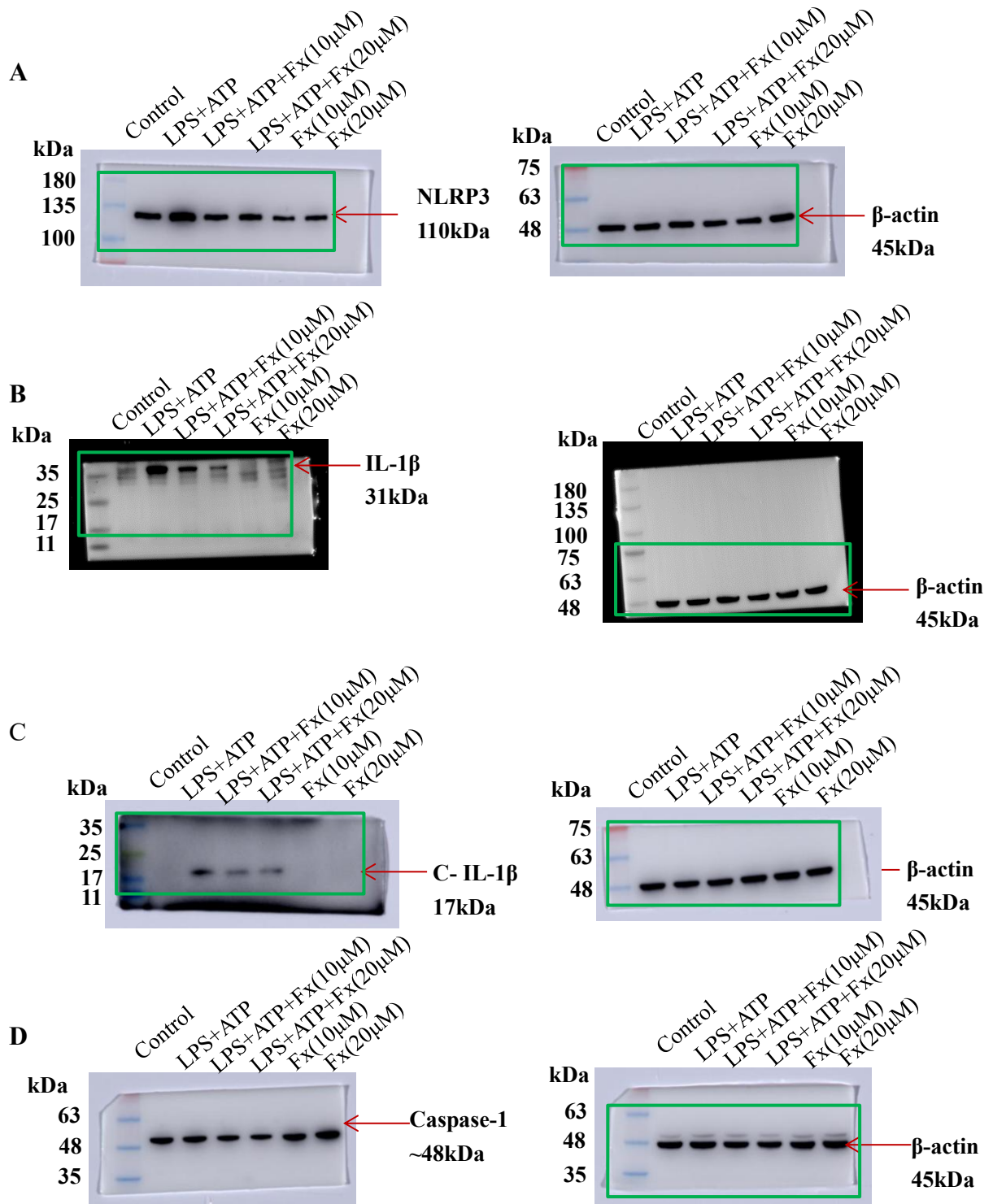


Figure S3 Original western blot results of (A) NLRP3 and β -actin, (B) IL-1 β and β -actin (C) C- IL-1 β and β -actin, (D) Caspase-1 and β -actin in BV2 for Figure 6A-D, respectively

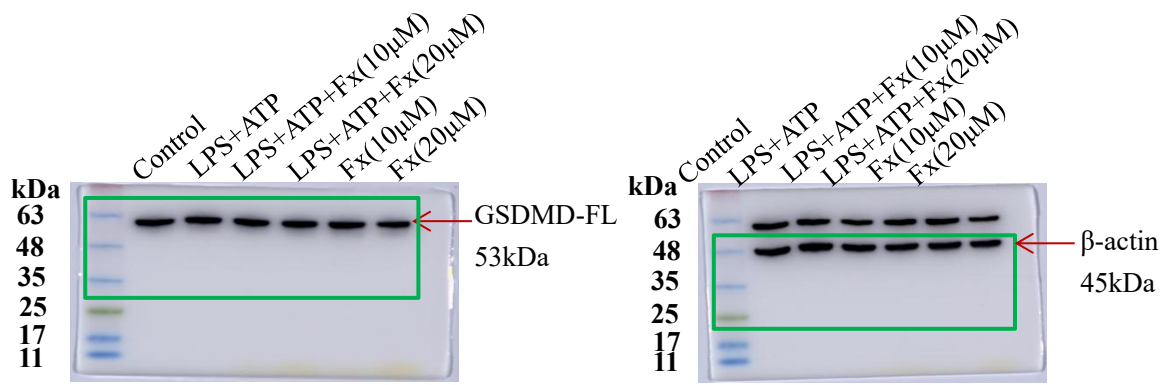


Figure S4 Original western blot results of GSDMD-FL and β -actin in BV2 for Figure 7A

Table S1. Primary and secondary antibodies used in this study.

Antibody	Supplier	Catalog No.	Application
NLRP3	Cell Signaling Technology	15101	WB
Caspase-1	Cell Signaling Technology	24232	WB
Cleaved caspase-1	Cell Signaling Technology	89332	WB
ASC	Cell Signaling Technology	67824	WB
IL-1 β	Cell Signaling Technology	31202	WB
Cleaved IL-1 β	Cell Signaling Technology	63124	WB
GSDMD-FL	Cell Signaling Technology	39754	WB
GSDMD-N	Cell Signaling Technology	10137	WB
Iba-1	Servicebio	GB15105	IF
GFAP	Servicebio	GB15096	IF
NLRP3	Servicebio	GB114320	IF
GSDMD	Proteintech	66387-1-Ig	IF
GSDMD	SabbioTech	53120-1	IF (BV2 cells)
Cleaved caspase-1	MedChemExpress	HY-P8062 2	IF (BV2 cells)
CD45 (PE-conjugated)	BioLegend	147712	Flow cytometry (spinal cord)
CD86 (APC-conjugated)	BioLegend	105012	Flow cytometry (spinal cord & BV2)
CD11b (FITC-conjugated)	BioLegend	101205	Flow cytometry (spinal cord)
CD206 (PerCP/Cyanine5.5-conjugated)	BioLegend	141716	Flow cytometry (spinal cord)
CD206 (FITC-conjugated)	BioLegend	141704	Flow cytometry (BV2 cells)
HRP-conjugated secondary antibody	Cell Signaling Technology	7074	WB

Table S2. Other biological reagents and kits used in this study

Reagent	Supplier	Catalog No.
Complete Freund's adjuvant (CFA)	Sigma-Aldrich	F5881
Pertussis toxin	List Biological Laboratories	181
Fucoxanthin	Abmole	M10301
LPS	Solarbio	L8880
IFN- γ	PeptoTech	AF-315-05
IL-4	PeptoTech	AF-214-14
ATP	Abmole	M5432
Collagenase type IV	Solarbio	C8160
Percoll	GE Healthcare	17-0891-09
Tissue Storage Solution	Miltenyi Biotec	130-100-008
RIPA lysis buffer	Solarbio	P0013
PMSF	Solarbio	P0100