

Supplementary Materials

Neural–Cardiac Inflammasome Axis after Traumatic Brain Injury

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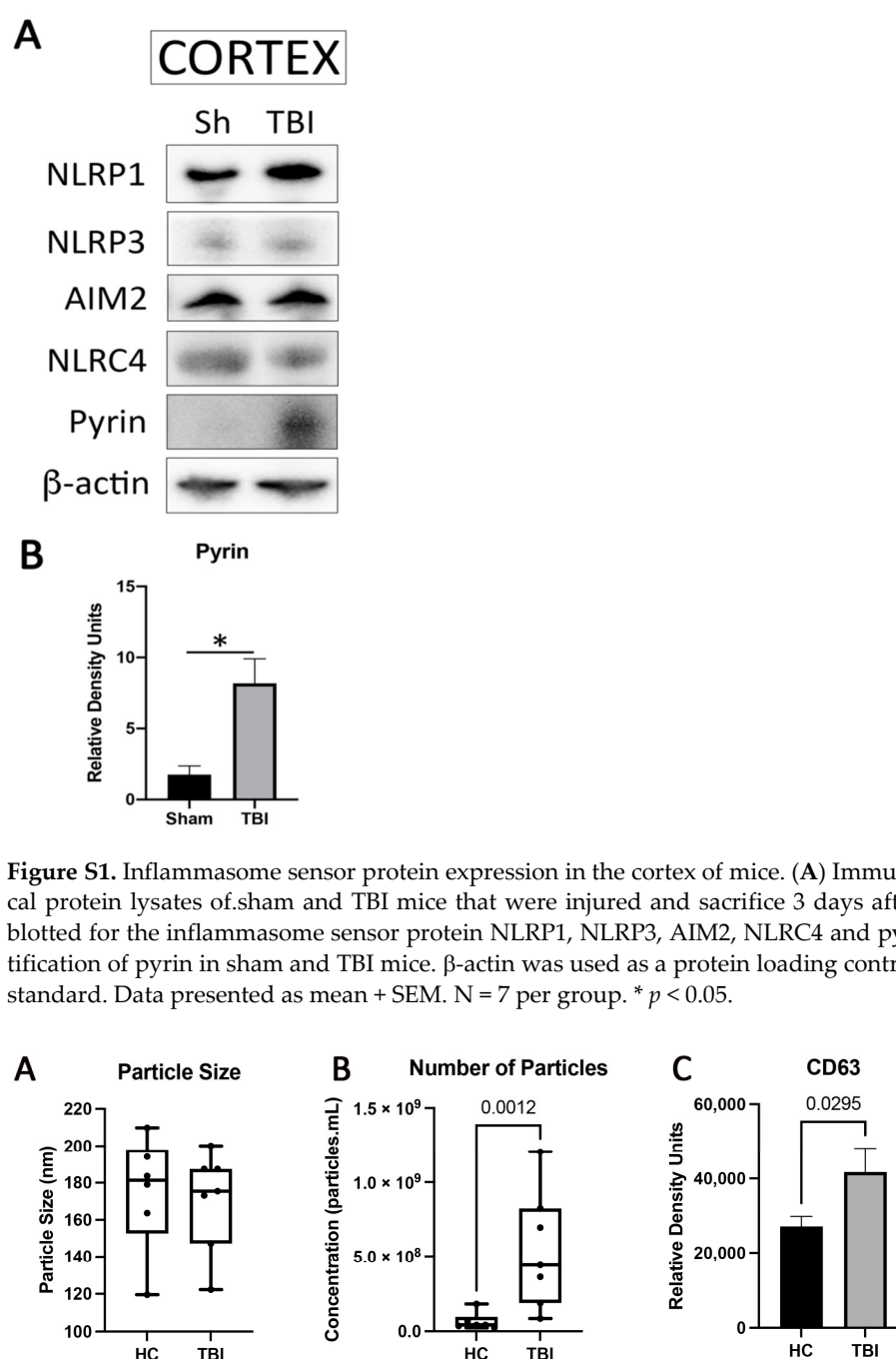


Figure S1. Inflammasome sensor protein expression in the cortex of mice. **(A)** Immunoblot of cortical protein lysates of sham and TBI mice that were injured and sacrifice 3 days after trauma and blotted for the inflammasome sensor protein NLRP1, NLRP3, AIM2, NLRC4 and pyrin. **(B)** Quantification of pyrin in sham and TBI mice. β -actin was used as a protein loading control and internal standard. Data presented as mean + SEM. N = 7 per group. * $p < 0.05$.

Figure S2. Characterization of serum-derived EV from TBI patients. NTA results for particle size **(A)** and particle number **(B)** of healthy controls (HC) and TBI patients. N: HC: N = 6 and TBI: N = 7.

(C) Relative protein expression levels of the EV marker CD63 in EV isolated from the serum of HC and TBI patients. N = 7 per group.

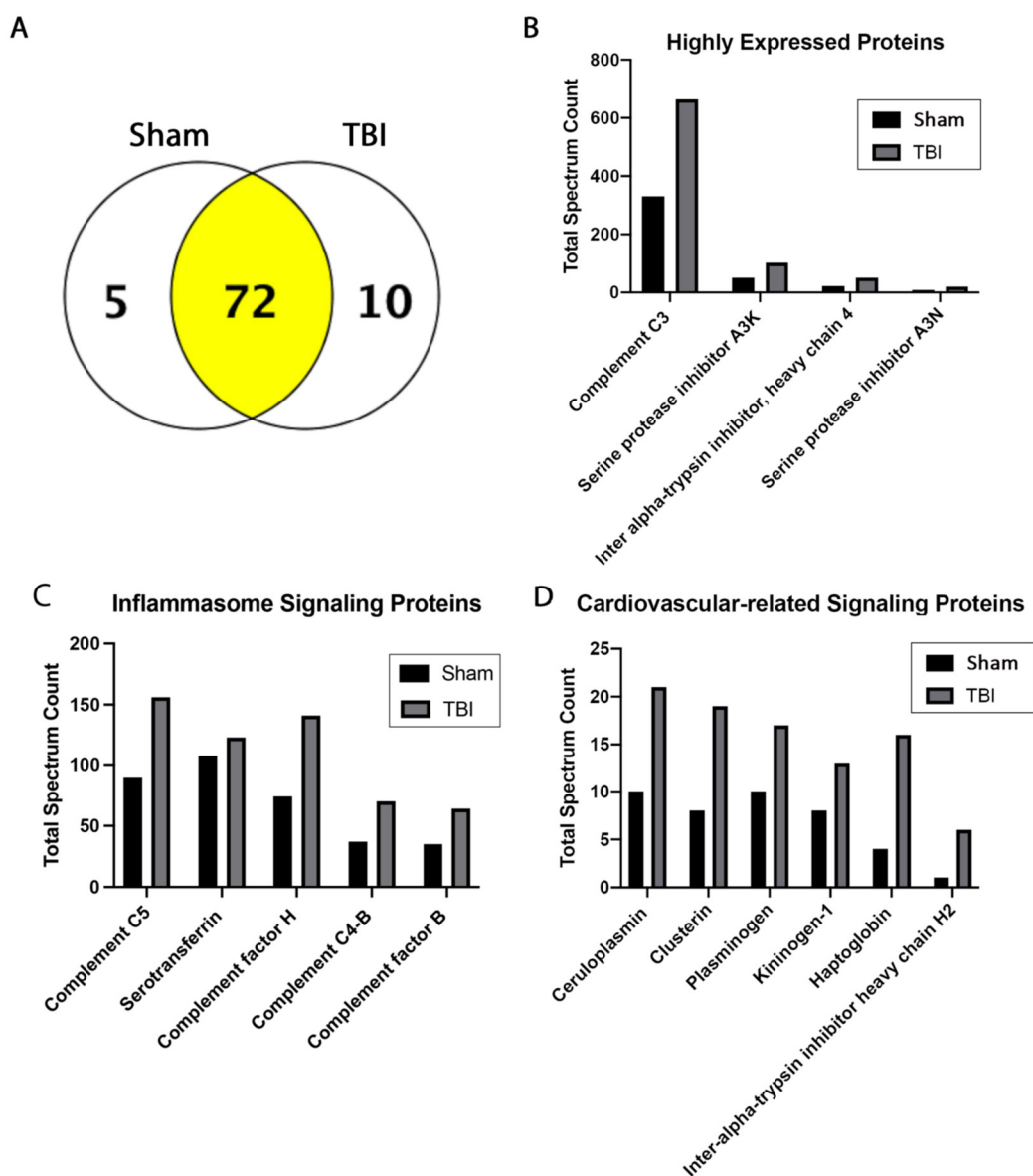


Figure S3. EV characterization by MS. (A) Venn diagram of the protein distribution between sham and TBI mice. (B) Bar graph of proteins with the highest expression in EV. (C) Bar graph of proteins known to be involved in inflammasome signaling that are elevated in EV from TBI mice when compared to sham. (D) Bar graph of proteins known to be involved in cardiac related signaling events that are elevated in EV from TBI mice when compared to sham.

Table S1. TBI Patient Characteristics.

Hospital Stay		Epidemiology		
Days in Hospital	Days in ICU	Age	Sex	Type of Accident
2	1	58	1	MVA
5	5	63	1	Fall
9	1	49	0	Fall
23	23	39	1	Fall
25	25	38	1	Assault

Characteristics @ Admission					
Hypoxia	Hypotension	Subarachnoid Hemorrhage on CT	Epidural Mass on CT	Glucose	Hb
0	0	1	0	128	14.3
0	0	1	0	472	14.3
0	0	0	1	112	11.7
1	1	1	0	260	12.5
0	0	0	0	153	14.5
0	0	1	0	140	11.6

Definitions	
0	No
1	Yes
GCS	Glasgow Comma Scale
GCS M	Motor
GCS V	Verbal
GCS O	Ocular
Pupils (2)	Both pupils react
Hb	Hemoglobin
GOSE	Glasgow Outcome Scale Extended