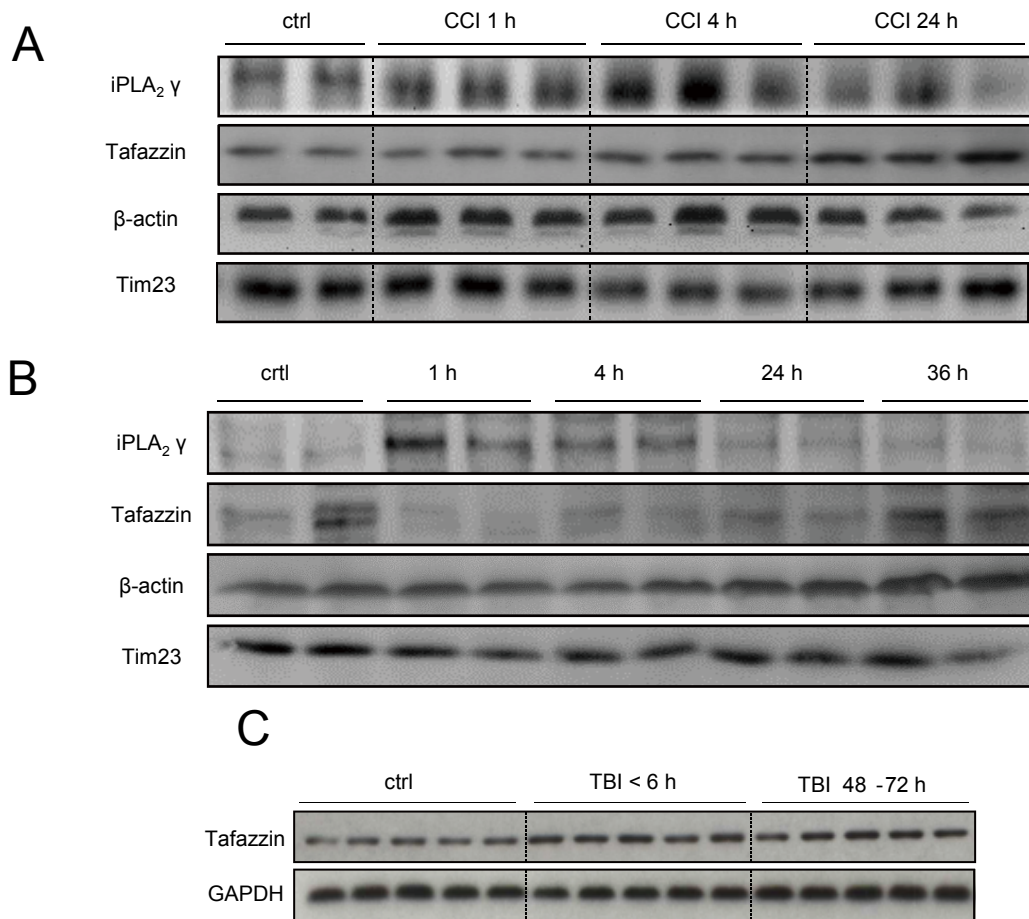
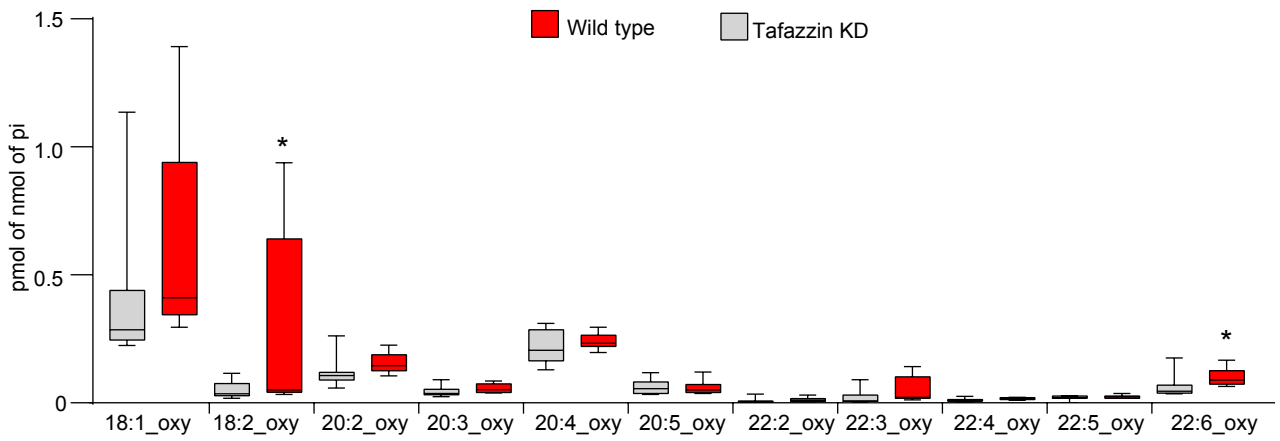


patient	gender	age	diagnosis	time to injury	site	outcome
ctrl						
1	male	32	epilepsy	—	right temporal lobe	no disability
2	male	24	epilepsy	—	right temporal lobe	no disability
3	male	56	epilepsy	—	left temporal lobe	mild disability
4	male	53	epilepsy	—	left temporal lobe	no disability
5	male	58	epilepsy	—	right temporal lobe	no disability
TBI <6h						
1	male	54	TBI	6h	left frontal lobe	severe disability
2	male	28	TBI	5h	right frontal lobe	mild disability
3	male	66	TBI	6h	right frontal lobe	death
4	male	52	TBI	5h	right frontal lobe	mild disability
5	male	45	TBI	4h	left frontal lobe	mild disability
TBI 48-72h						
1	male	68	TBI	51h	left frontal lobe	death
2	male	63	TBI	49h	right frontal lobe	severe disability
3	male	67	TBI	65h	right temporal lobe	death
4	male	56	TBI	58h	left temporal lobe	mild disability
5	male	49	TBI	66h	right temporal lobe	mild disability

Supplementary Table 1. Demographic and clinical parameters of control and TBI patients. ctrl, control; TBI, traumatic brain injury; h, hour.

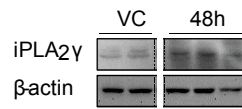


Supplementary Figure 1. (A) Representative blot (out of 5) showing expression levels of cardiolipin remodeling proteins after CCI in contusional cortex. (B) Temporal profile of changes in cardiolipin remodeling proteins, after mechanical stretch in HT22 cells. (C) Changes in tafazzin expression in human contusional brain tissue for TBI patients who underwent resection of contusion within 6 hours or 48-72 hours after TBI.

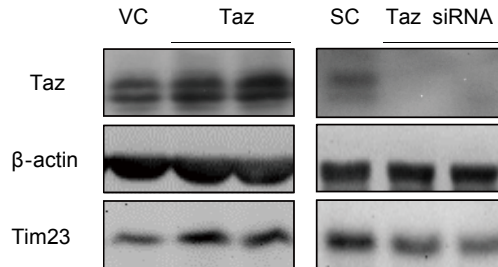


Supplementary Figure 2. Changes in oxidized FFA in wild type and tafazzin knockdown mice. n = 8/ group *p<0.05 vs. WT.

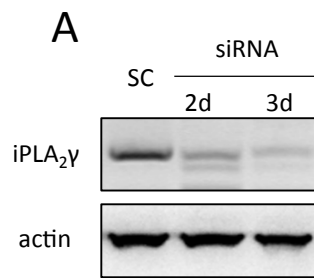
A



B

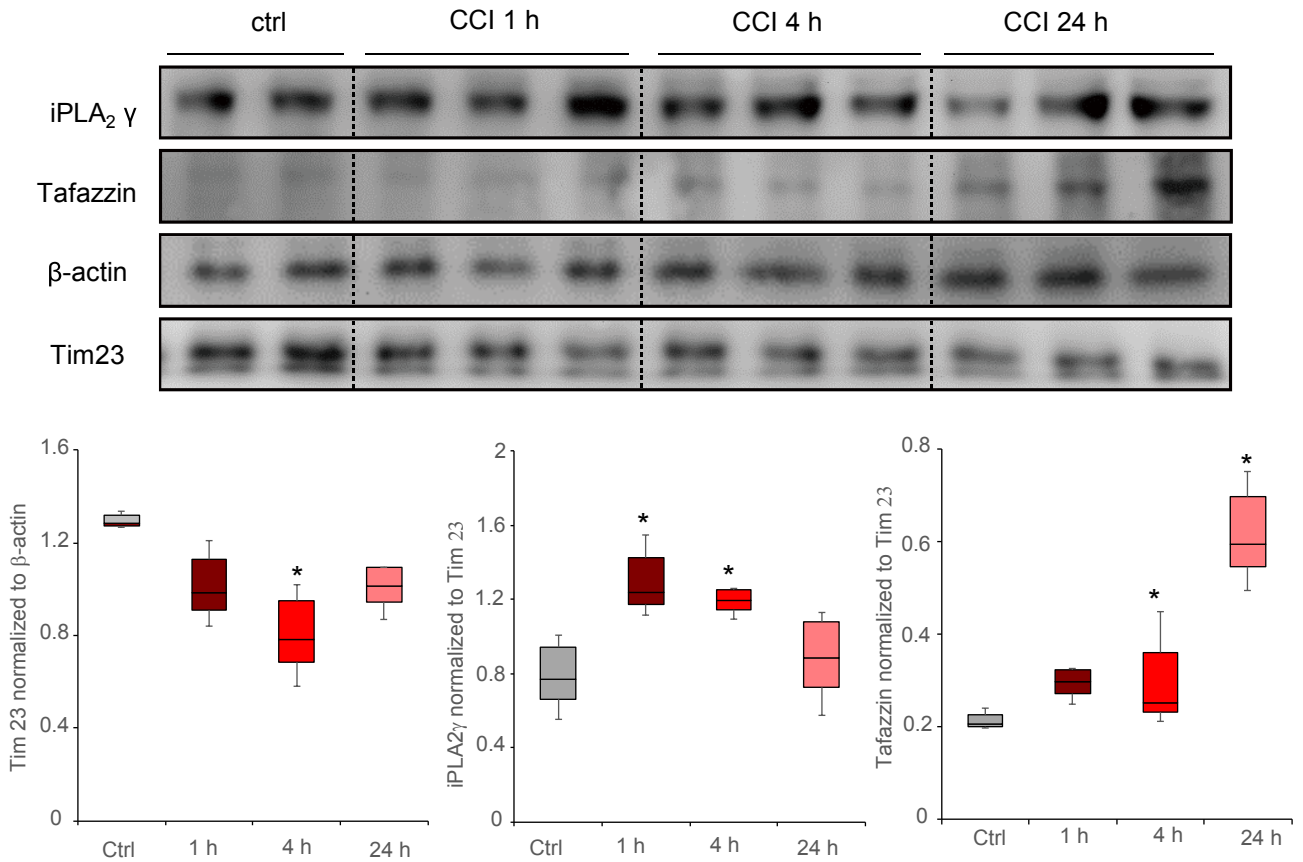


Supplementary Figure 3. (A) Assessment of Calcium-independent phospholipase A₂ (iPLA₂γ) after transient transfection with (iPLA₂γ) plasmid. **(B)** Tafazzin levels assessed by western blot after overexpression (left) or knock down



Supplementary Figure 4. Assessment of Calcium-independent phospholipase A₂ (iPLA₂ γ) on 2 and 3 days after intraventricular microinjection in rat brain.

Hippocampus



Supplementary Figure 5. Expression of cardiolipin remodeling pathway proteins (relative to β-actin or mitochondrial marker Tim23) after CCI in ipsilateral (left) hippocampus. n = 3/group, *p < 0.05 vs. control (ctrl).