

## Supplementary Information

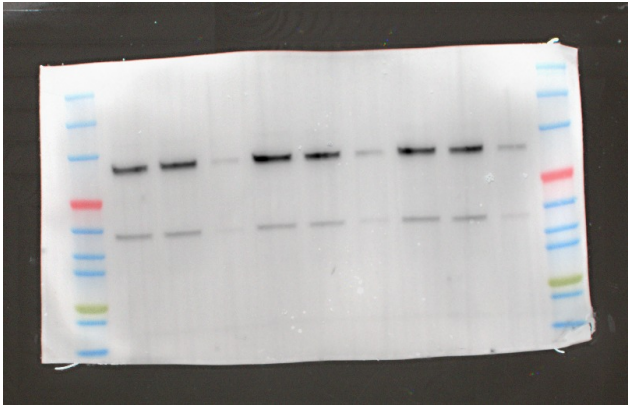
Light-Induced Calcium Dyshomeostasis Suppresses Glioblastoma by Activating Pyroptosis and Enhancing Pro-Inflammatory Macrophage Polarization

Ruicheng Fan, Yuekai Wang, Jinhe Xu, Danni Yin, Shuangjiang Li, Yi Yang, Zhenju Li & Hongli Li\*

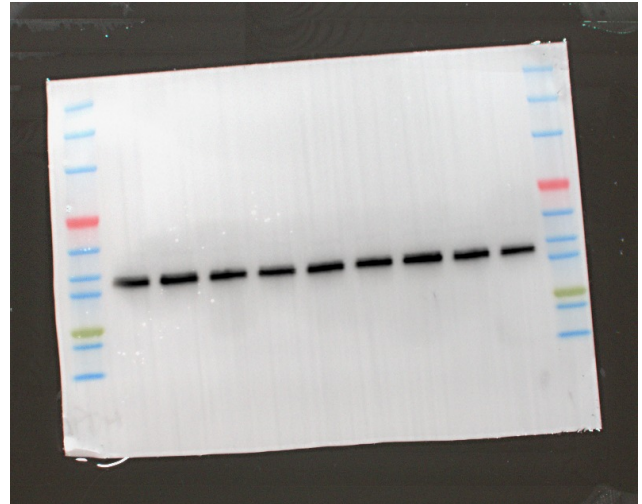
\*Corresponding author: lihongli@tmmu.edu.cn

This file contains: Supplementary Fig. S1 (full-length, uncropped Western blot membranes corresponding to Fig. 1e and Fig. 3g of the main text).

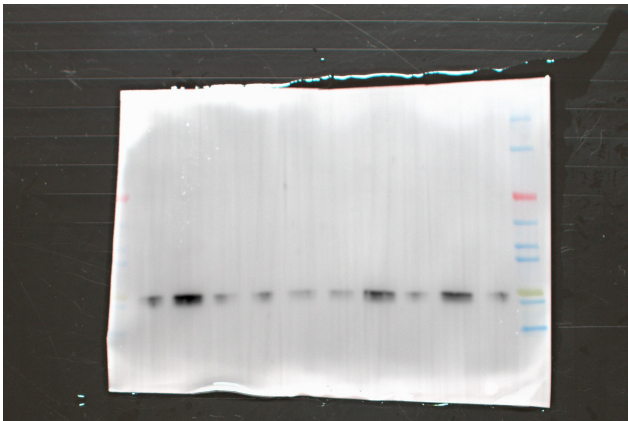
(a) Fig. 1e — STIM1



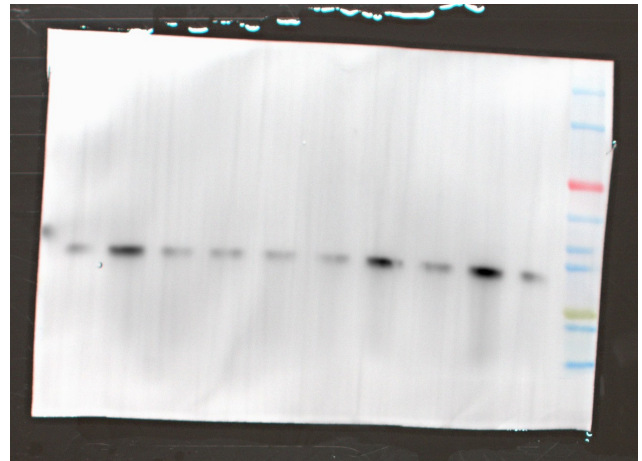
(b) Fig. 1e — GAPDH (loading control)



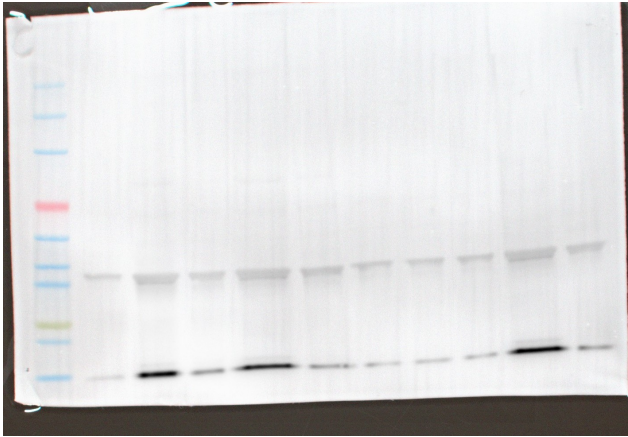
(c) Fig. 3g — NLRP3



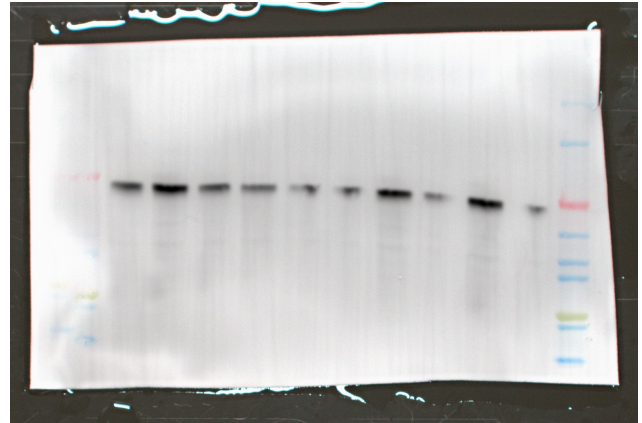
(d) Fig. 3g — caspase-3



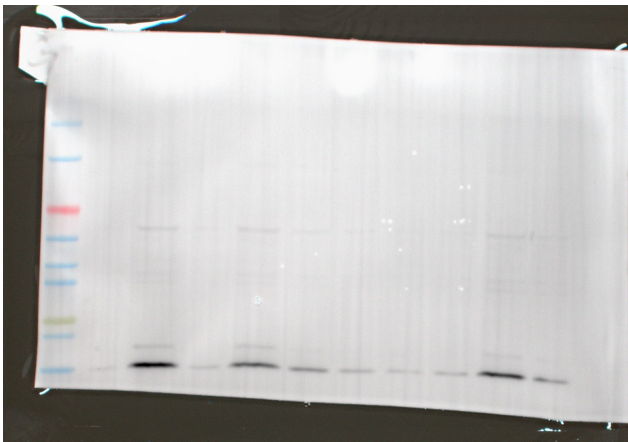
**(e)** Fig. 3g — caspase-1 (pro-caspase-1 and cleaved caspase-1)



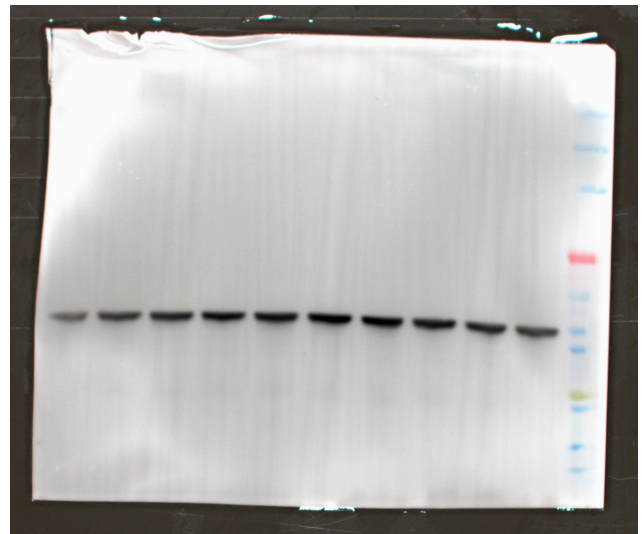
**(f)** Fig. 3g — GSDME-N



**(g)** Fig. 3g — GSDMD-N



**(h)** Fig. 3g — GAPDH (loading control)



**Supplementary Fig. S1 | Full-length, uncropped Western blot membranes.** Complete membranes are presented as captured with a Vilber Fusion FX SPECTRA imaging system; coloured prestained molecular-weight markers are visible at the membrane edges. **(a, b)** Blots corresponding to Fig. 1e: **(a)** STIM1 and **(b)** GAPDH (loading control); lanes 1–3, groups I–III in U87 cells; lanes 4–6, groups I–III in GL261 cells. **(c–h)** Blots corresponding to Fig. 3g: **(c)** NLRP3, **(d)** caspase-3, **(e)** caspase-1 (pro-caspase-1 and cleaved caspase-1), **(f)** GSDME-N, **(g)** GSDMD-N and **(h)** GAPDH (loading control); lanes 1–5 (e, g) or lanes 6–10 (c, d, f, h) correspond to groups I–V. Group definitions — Fig. 1e: I, vector control; II, LOV2-STIM1 without BLS; III, LOV2-STIM1 with BLS. Fig. 3g: I, LOV2-STIM1 only; II, LOV2-STIM1 + BLS; III, LOV2-STIM1 + BLS + GSDMD knockout; IV, LPS (1  $\mu$ g/mL, 6 h); V, LPS + GSDMD knockout.