

# **The dietary sweetener sucralose is a negative modulator of T-cell-mediated responses**

Fabio Zani\*, Julianna Blagih\*, Tim Gruber, Michael D. Buck, Nicholas Jones, Marc Hennequart, Clare L. Newell, Steven E. Pilley, Pablo Soro-Barrio, Gavin Kelly, Nathalie M. Legrave, Eric C. Cheung, Ian S. Gilmore, Alex P. Gould, Cristina Garcia-Caceres, Karen H. Vousden

**Supplementary Information**

**Raw Gels for Western Blots**





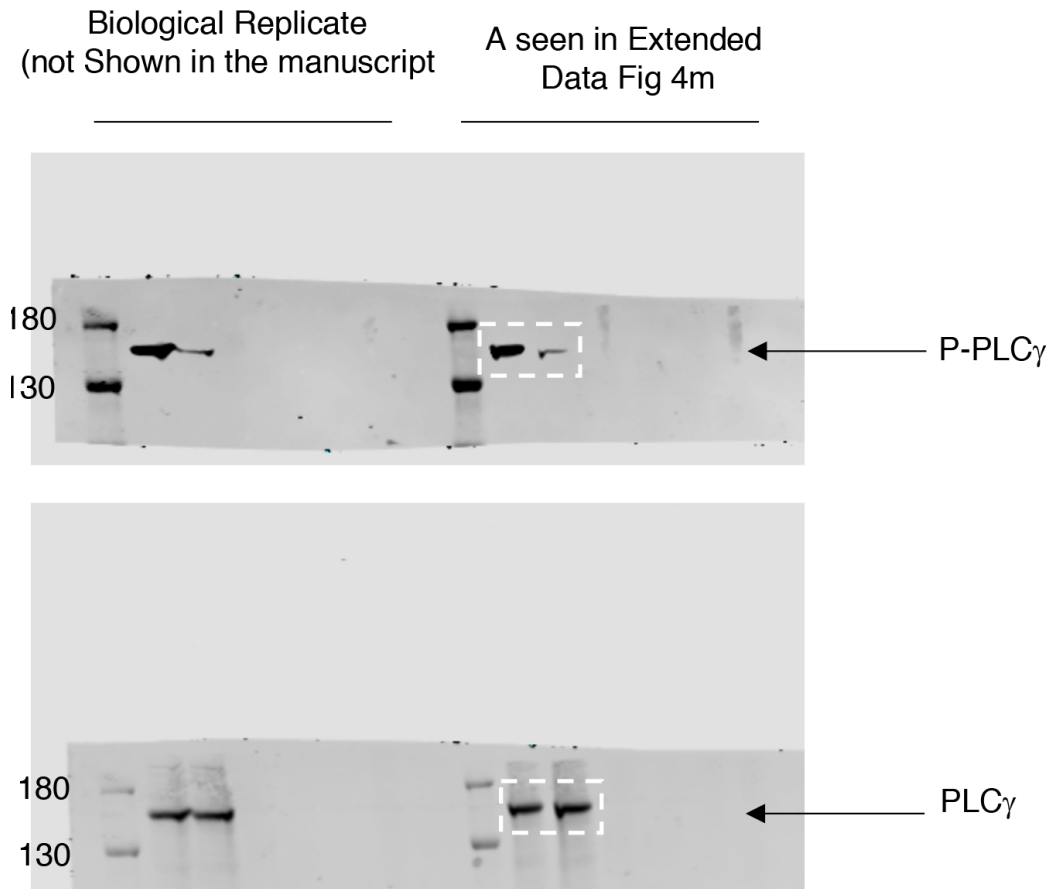
**Raw Gel for Extended Data Fig. 6b. PLC $\gamma$  phosphorylation in Jurkat T cells.**

Molecular weights indicated to the left of the gel

Lanes (left to right)

1) Control Jurkat cells; 2) Sucralose-treated Jurkat cells

Phospho-PLC $\gamma$  (top gel) and total PLC $\gamma$  (bottom gel).



### Raw Gel for Extended Data Fig. 6c. ERK activity in primary murine T cells downstream of TCR activation

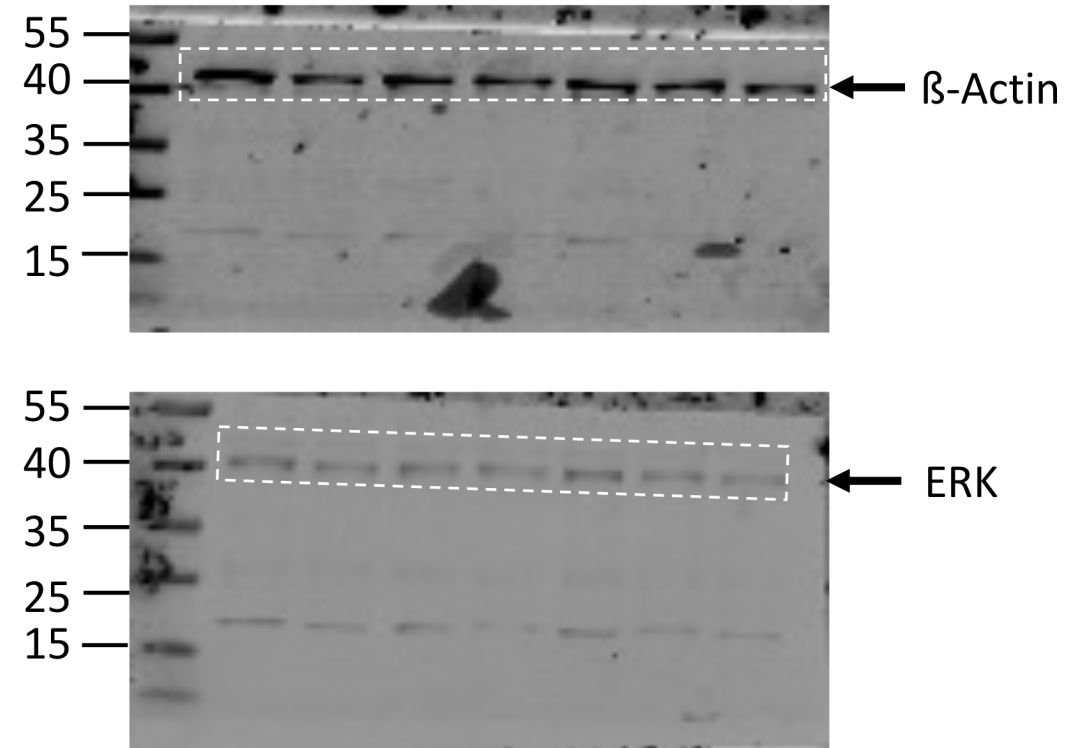
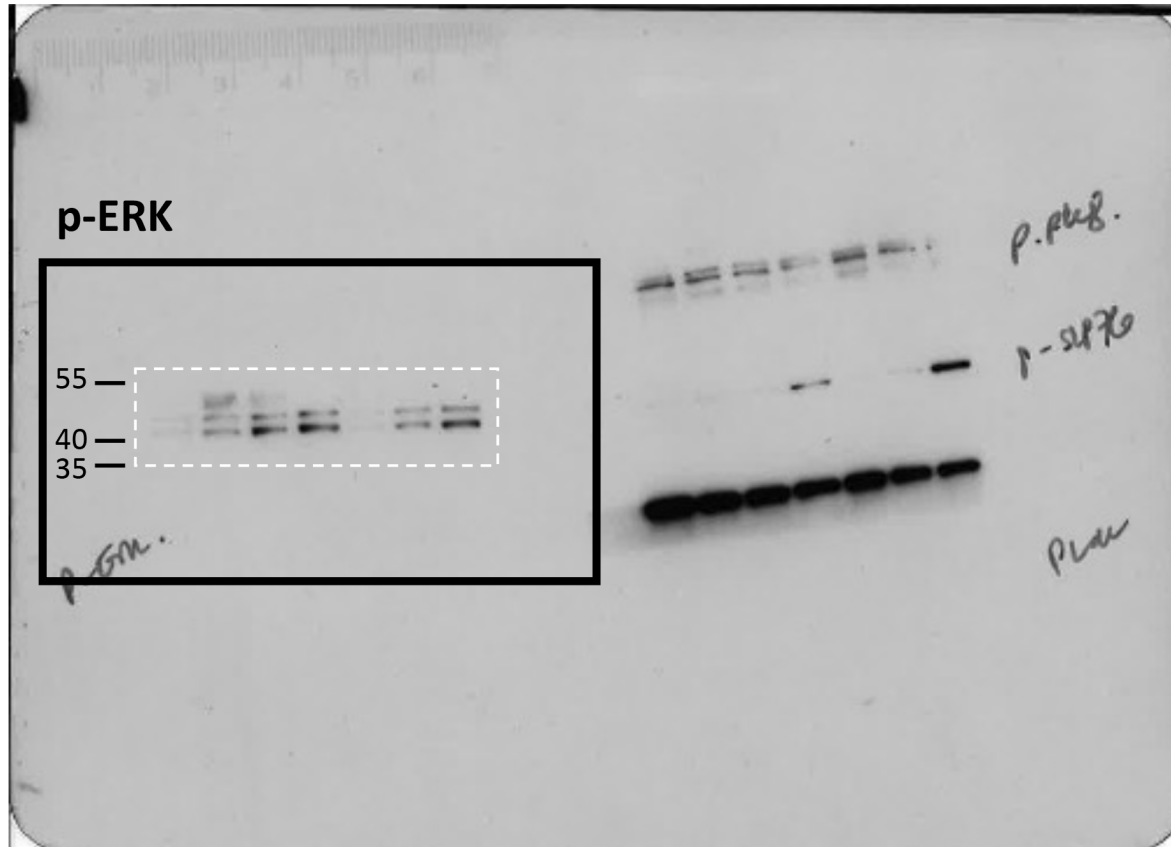
Molecular weights indicated to the left of the gel

Lanes (left to right)

1) control unstimulated; 2) control 1 min  $\alpha$ CD3; 3) control 2 min  $\alpha$ CD3; 4) control 5 min  $\alpha$ CD3.

5) sucralose 1 min  $\alpha$ CD3; 6) sucralose 2 min  $\alpha$ CD3; 7) sucralose 5 min  $\alpha$ CD3.

Phospho-ERK (left gel), total ERK (right bottom gel), and  $\beta$ -Actin (right top gel).



### Raw Gel for Extended Data Fig. 6d. ZAP70 activity in primary murine T cells downstream of TCR activation

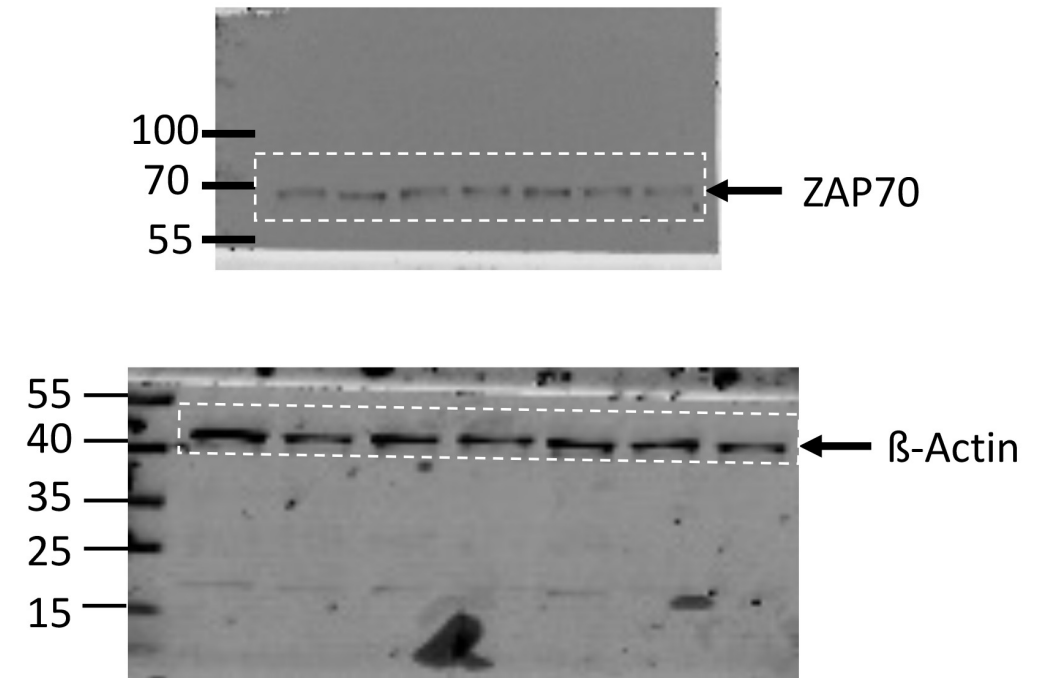
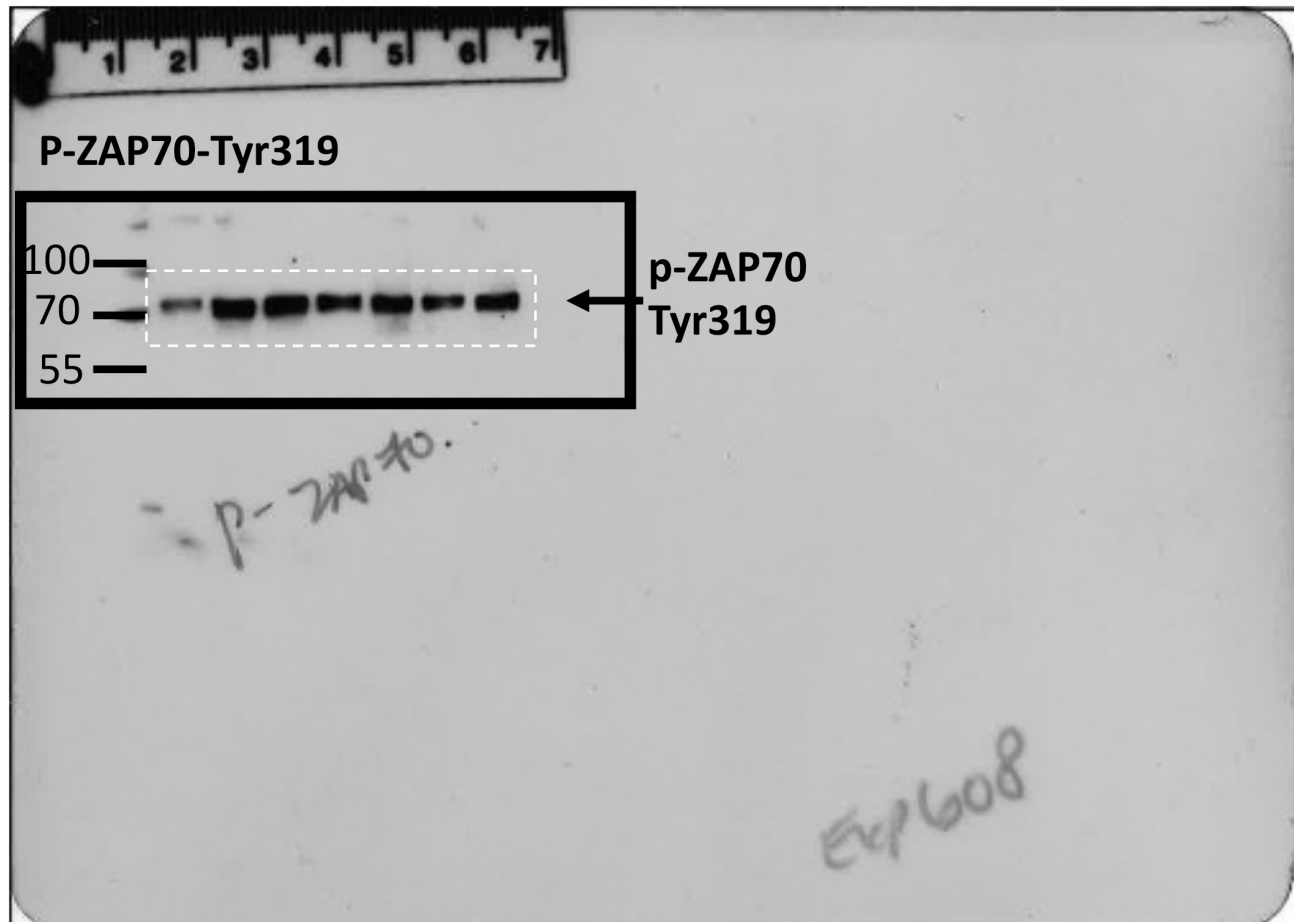
Molecular weights indicated to the left of the gel

Lanes (left to right)

1) control unstimulated; 2) control 1 min  $\alpha$ CD3; 3) control 2 min  $\alpha$ CD3; 4) control 5 min  $\alpha$ CD3.

5) sucralose 1 min  $\alpha$ CD3; 6) sucralose 2 min  $\alpha$ CD3; 7) sucralose 5 min  $\alpha$ CD3.

Phospho-ZAP70<sup>Tyr319</sup> (left gel), total ZAP70 (right top gel), and  $\beta$ -Actin (right bottom gel).



### Raw Gel for Extended Data Fig. 6d. Lck activity in primary murine T cells downstream of TCR activation

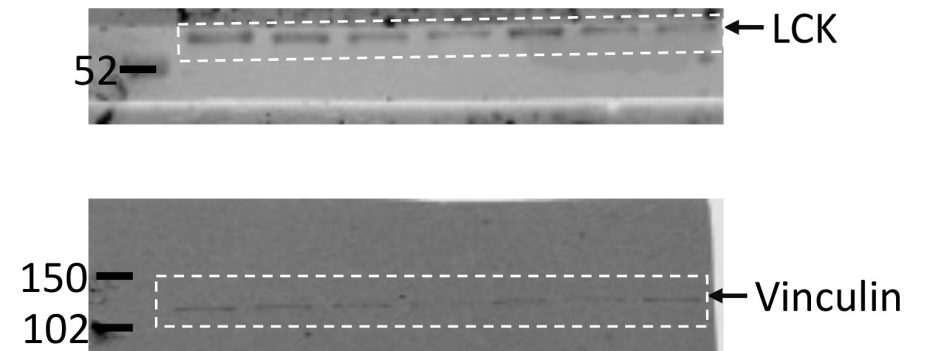
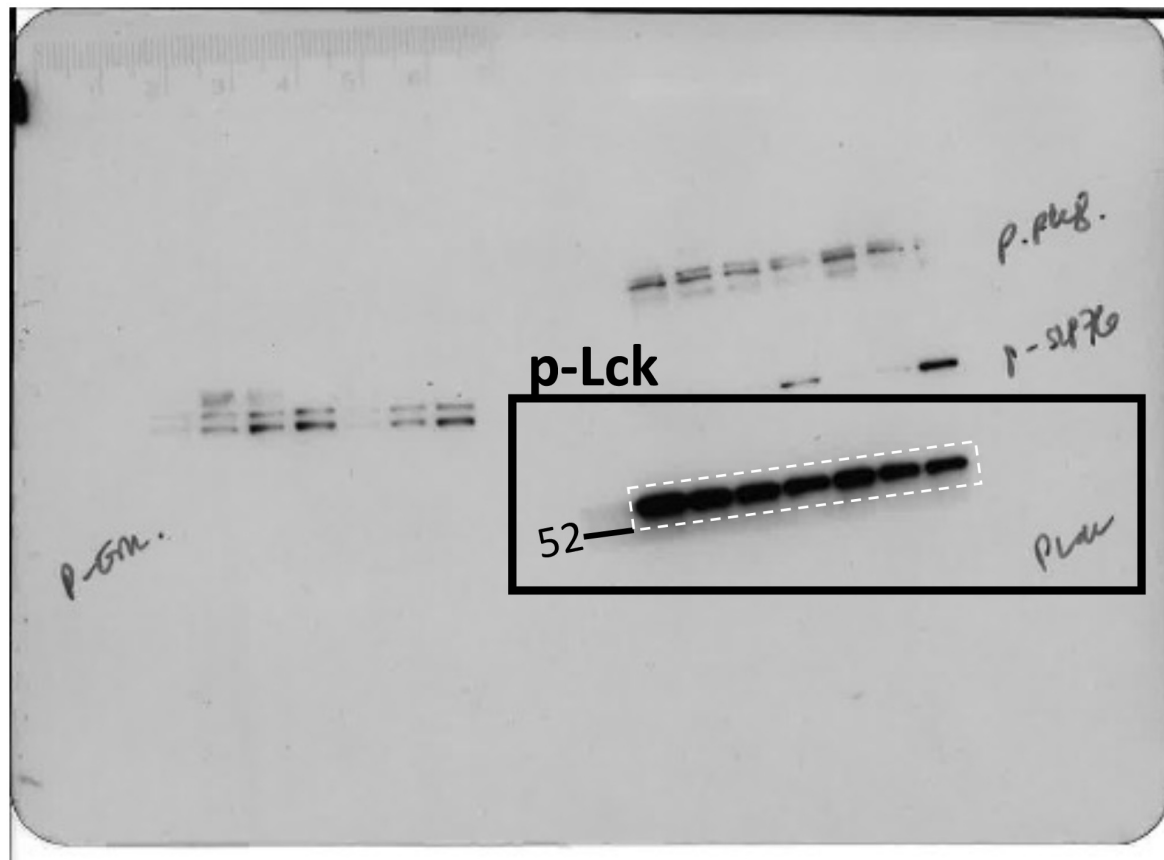
Molecular weights indicated to the left of the gel

Lanes (left to right)

1) control unstimulated; 2) control 1 min  $\alpha$ CD3; 3) control 2 min  $\alpha$ CD3; 4) control 5 min  $\alpha$ CD3.

5) sucralose 1 min  $\alpha$ CD3; 6) sucralose 2 min  $\alpha$ CD3; 7) sucralose 5 min  $\alpha$ CD3.

Phospho-Lck (left gel), total Lck (right top gel), and Vinculin (right bottom gel).



**Raw Gel for Extended Data Fig. 6d. LAT activity in primary murine T cells downstream of TCR activation**

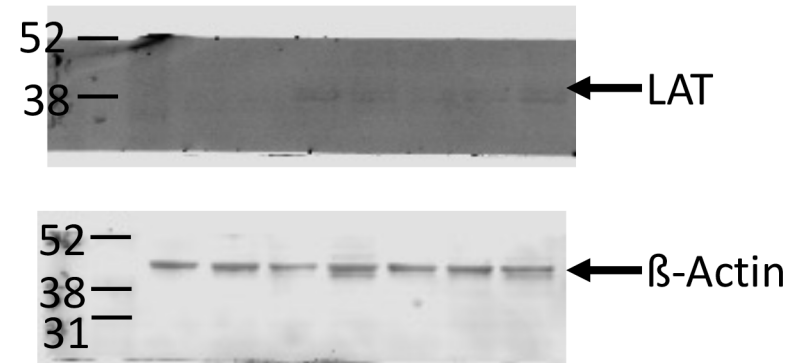
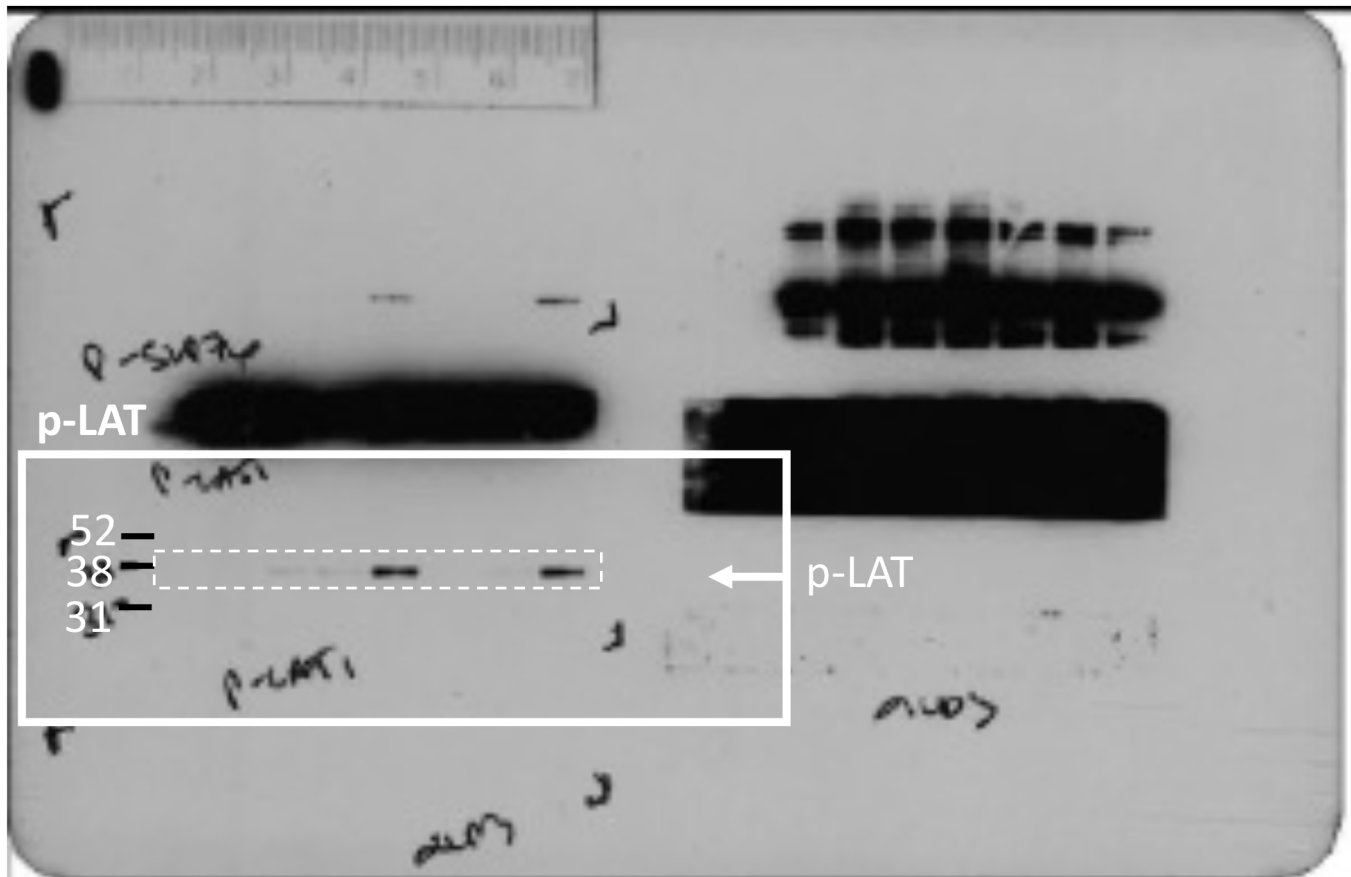
Molecular weights indicated to the left of the gel

Lanes (left to right)

1) control unstimulated; 2) control 1 min  $\alpha$ CD3; 3) control 2 min  $\alpha$ CD3; 4) control 5 min  $\alpha$ CD3.

5) sucralose 1 min  $\alpha$ CD3; 6) sucralose 2 min  $\alpha$ CD3; 7) sucralose 5 min  $\alpha$ CD3.

Phospho-LAT (left gel), total LAT (right top gel), and  $\beta$ -Actin (right bottom gel).





### Raw Gel for Extended Data Fig. 6e. Immunoprecipitation for ZAP70 and CD3 $\zeta$ in Jurkat T cells

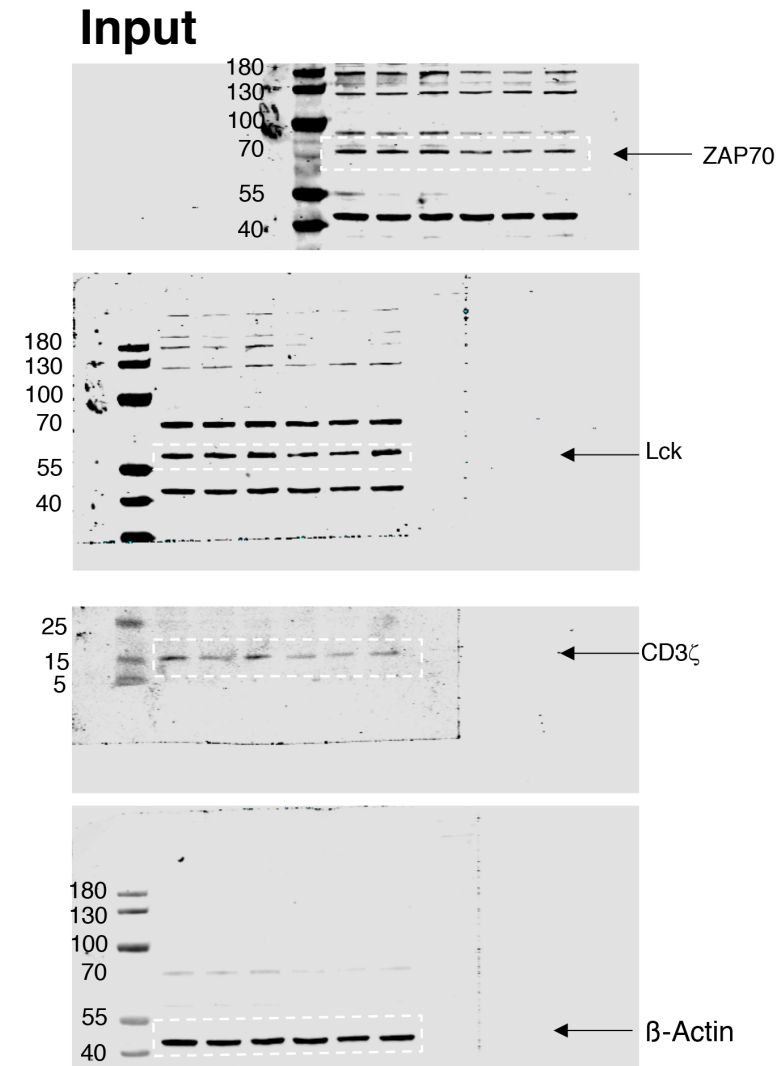
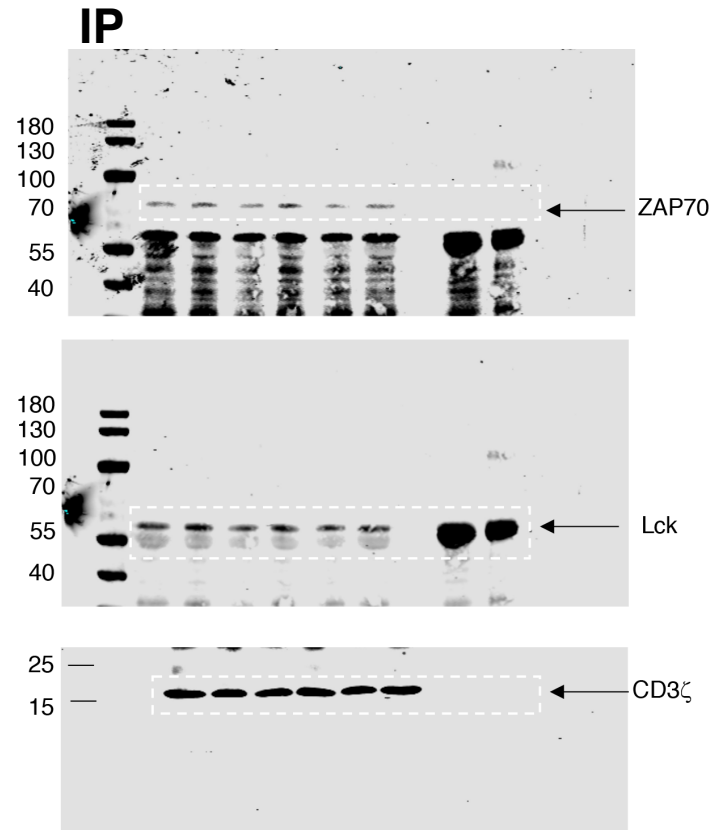
Molecular weights indicated to the left of the gel

Lanes (left to right)

1) control unstimulated; 2) control 1 min  $\alpha$ CD3; 3) control 2 min  $\alpha$ CD3; 4) control 5 min  $\alpha$ CD3.

5) sucralose unstimulated; 6) sucralose 2 min  $\alpha$ CD3; 7) sucralose 5 min  $\alpha$ CD3. for IP only 6) empty 7) and 8) IgG CTR

Left: (top to bottom) ZAP70, Lck, CD3 $\zeta$ . Right (top to bottom) ZAP70, total Lck, CD3  $\beta$ -Actin (right bottom gel).



**Raw Gel for Extended Data Fig. 6f. Subcellular fractionation of Jurkat T cells.**

Molecular weights indicated to the left of the gel

Lanes (left to right)

1) and 2) Whole cell fraction; 3) and 4) Cytoplasmic fraction; 5) and 6) membrane fraction  
top to bottom: Na-K ATPase; GAPDH, Tom20

