

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

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## **Supplementary Information**

### **Raw Gels for Western Blots**

## Raw Gel for Figure 2b. PLC $\gamma$ phosphorylation downstream of TCR stimulation in primary murine T cells

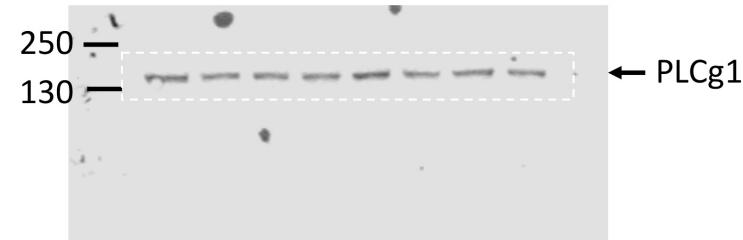
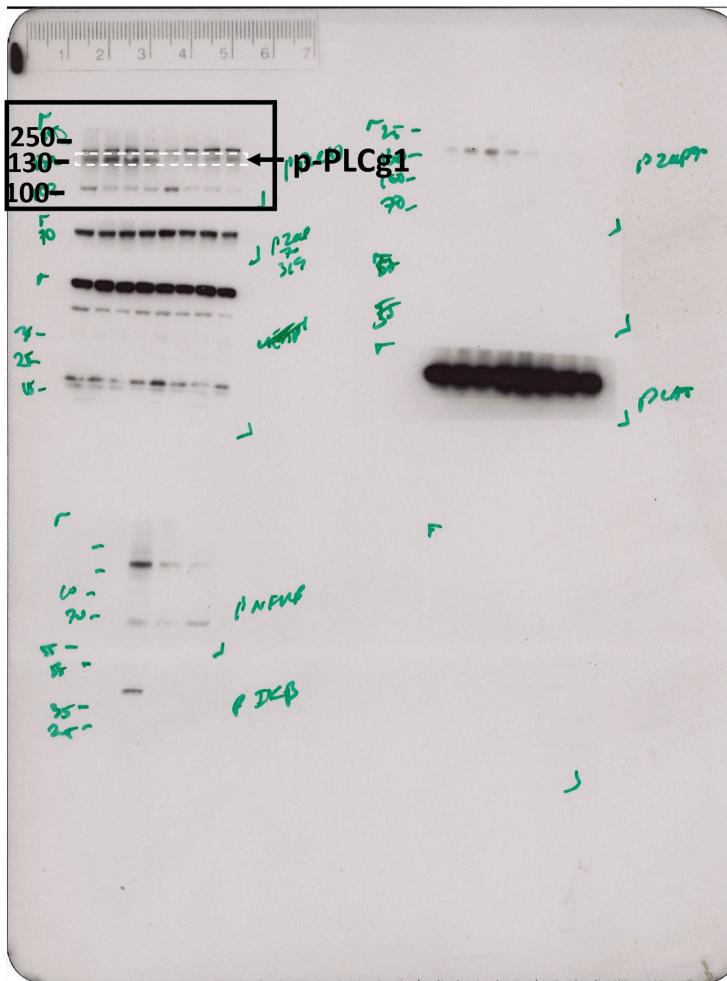
Molecular weights indicated to the left of the gel

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 1 min  $\alpha$ CD3; 7) sucralose 2 min  $\alpha$ CD3; 8) sucralose 5 min  $\alpha$ CD3.

Phospho-PLC $\gamma$  (left gel) and total PLC $\gamma$  (right gel).



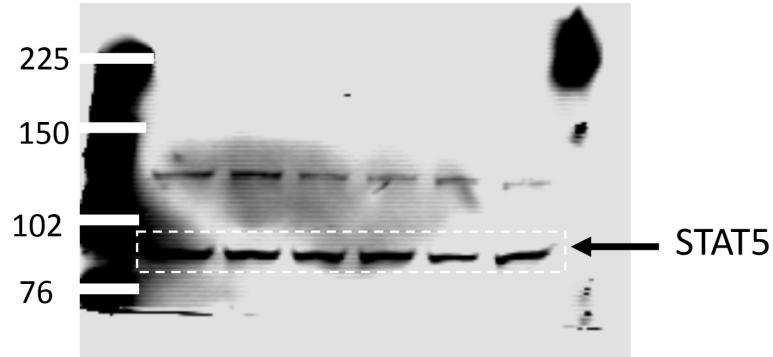
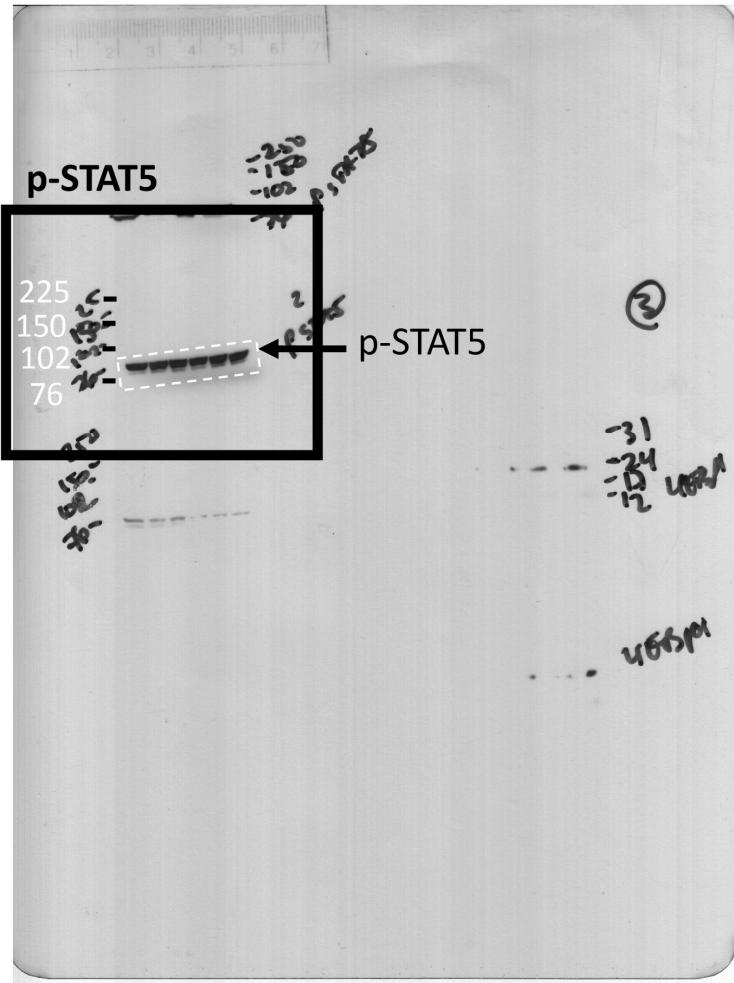
## Raw Gel for Extended Data Fig. 5i. STAT5 activity in primary murine T cells activated for 24hours with $\alpha$ CD3/CD28

Molecular weights indicated to the left of the gel

Lanes (left to right)

1) control T cells 2) control T cells 3) control T cells; 4) Sucralose-treated T cells; 5) sucralose-treated T cells; 6) sucralose-treated T cells.

Phospho-STAT5 (left gel) and total STAT5 (right gel).



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

Molecular weights indicated to the left of the gel

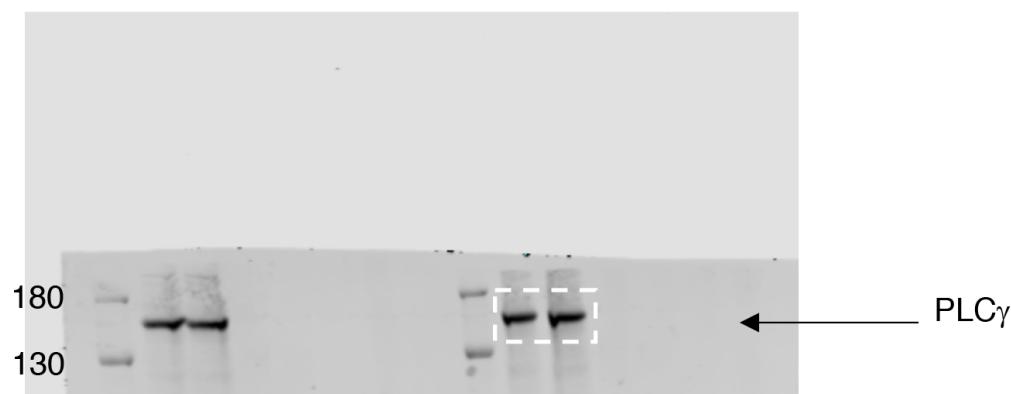
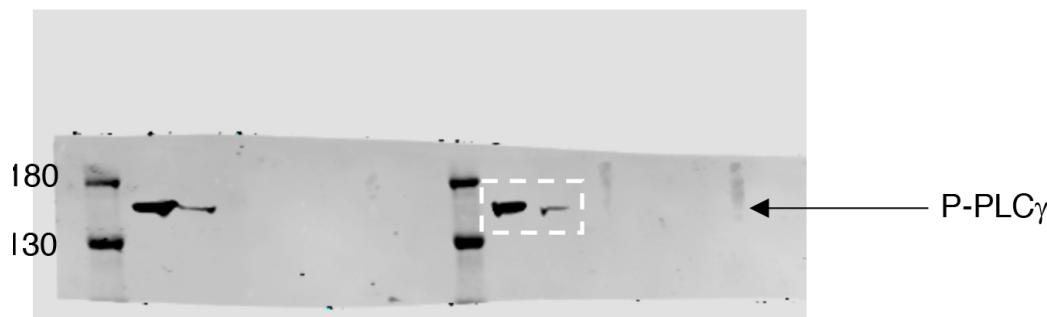
Lanes (left to right)

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

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

Biological Replicate  
(not Shown in the manuscript)

A seen in Extended  
Data Fig 4m



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

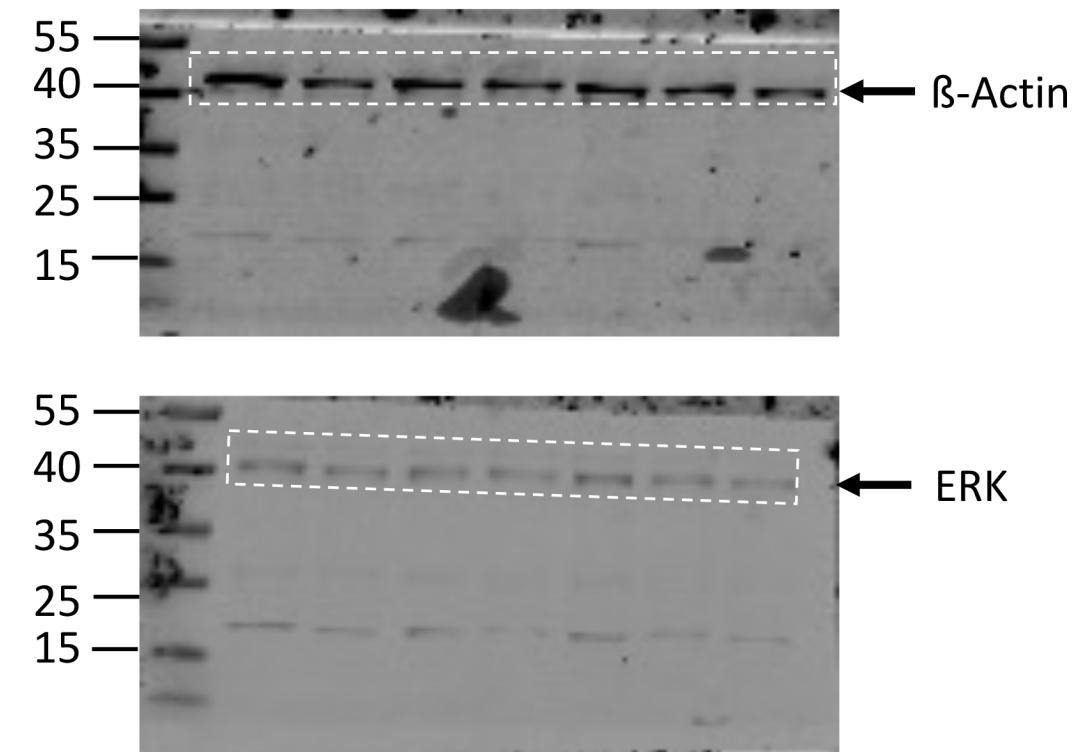
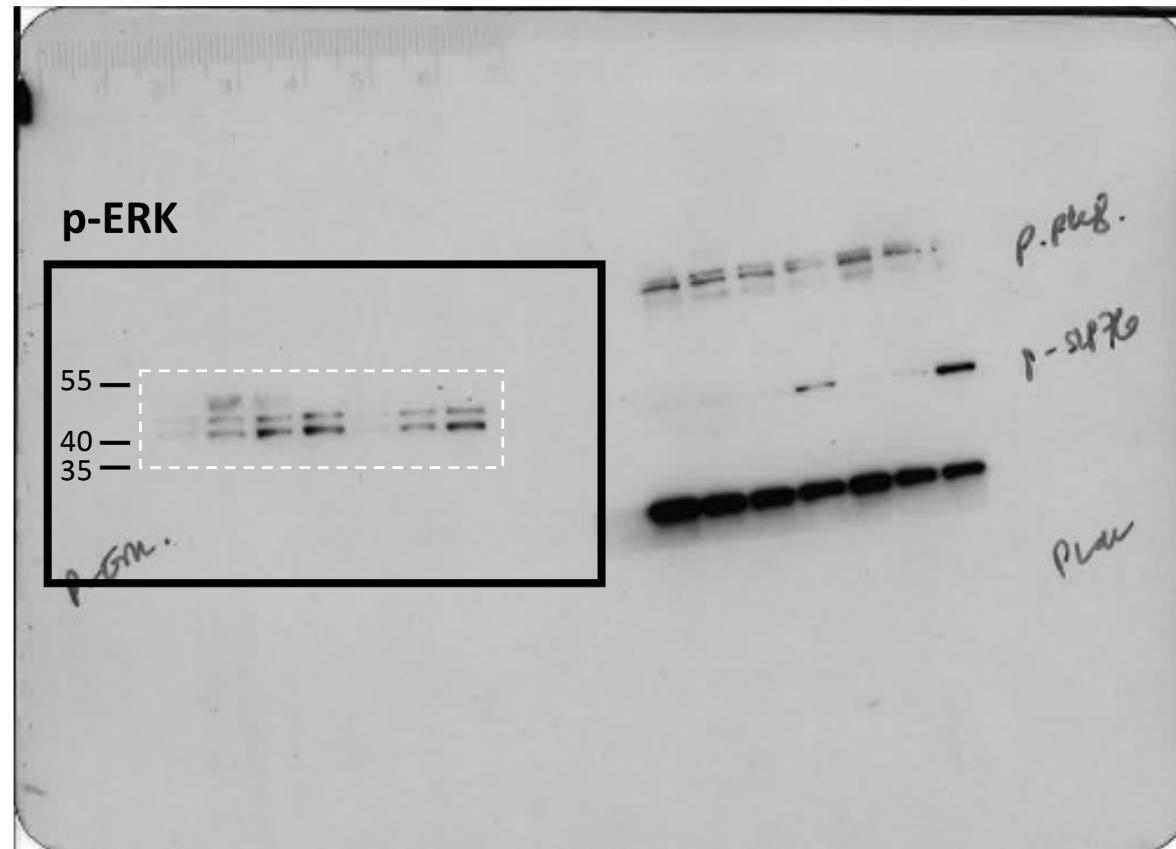
Molecular weights indicated to the left of the gel

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

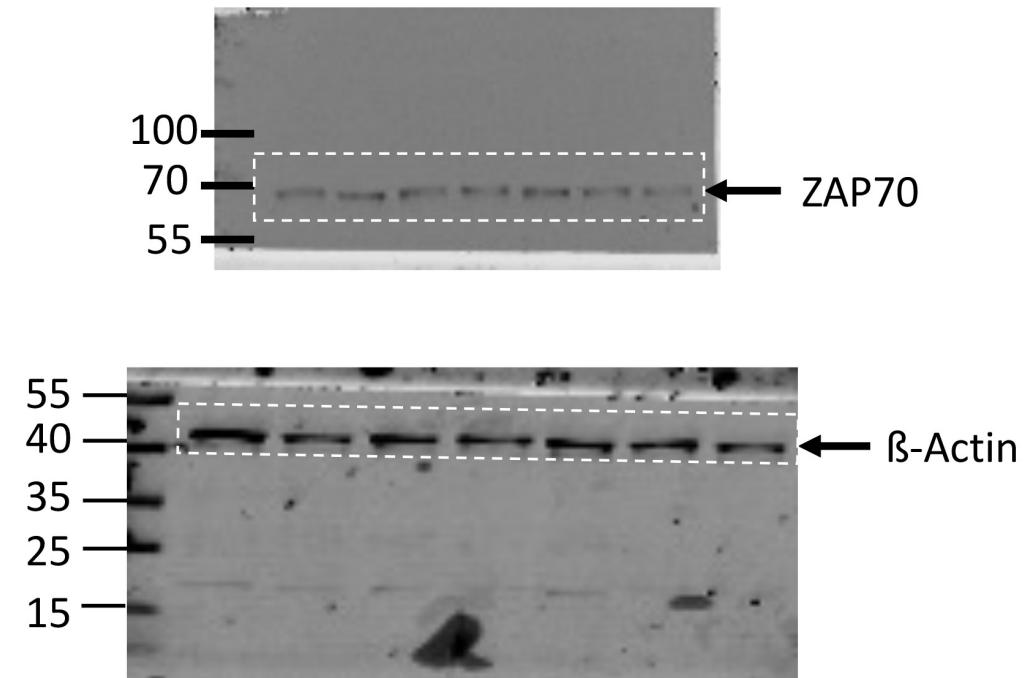
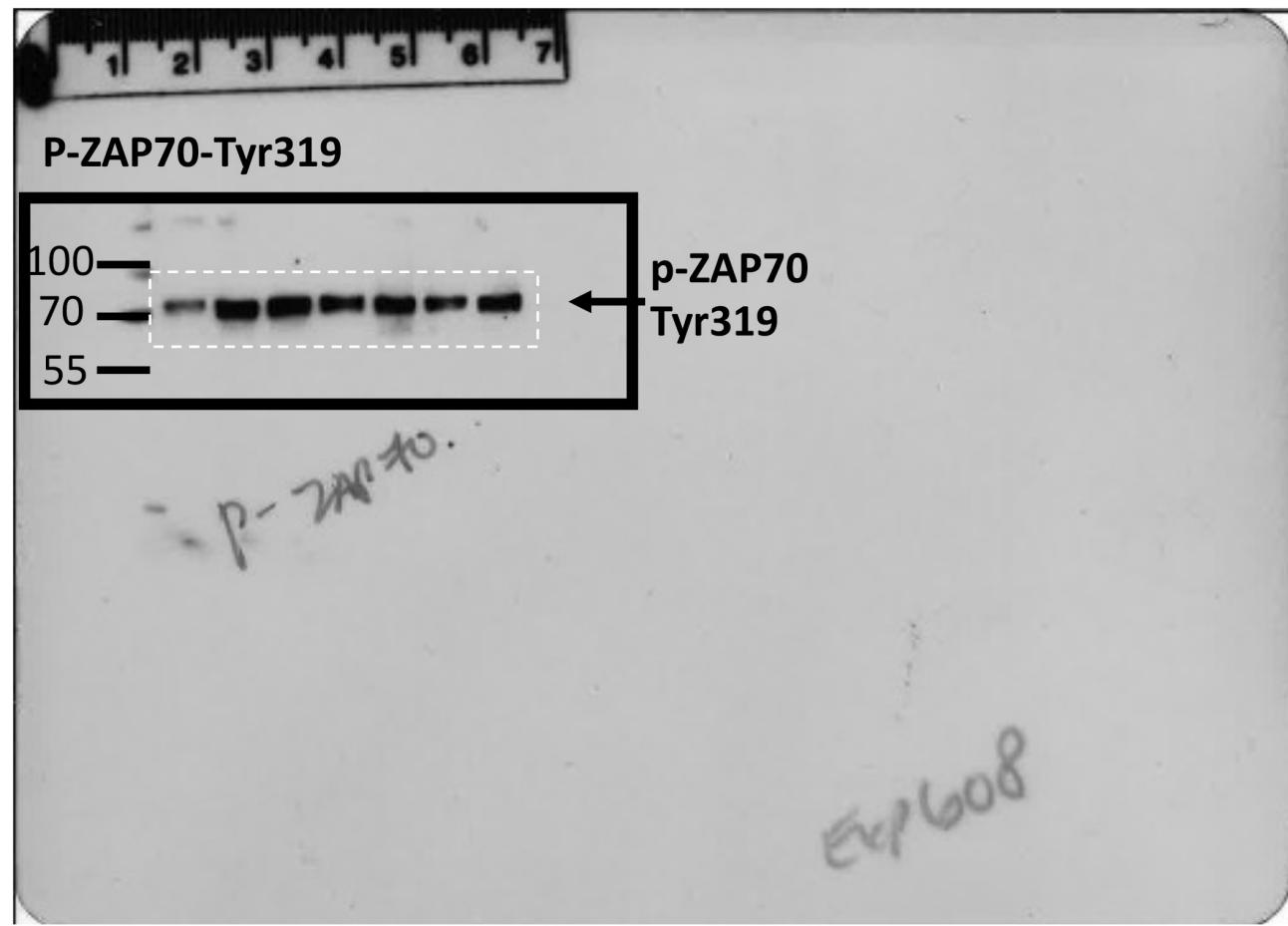
Molecular weights indicated to the left of the gel

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

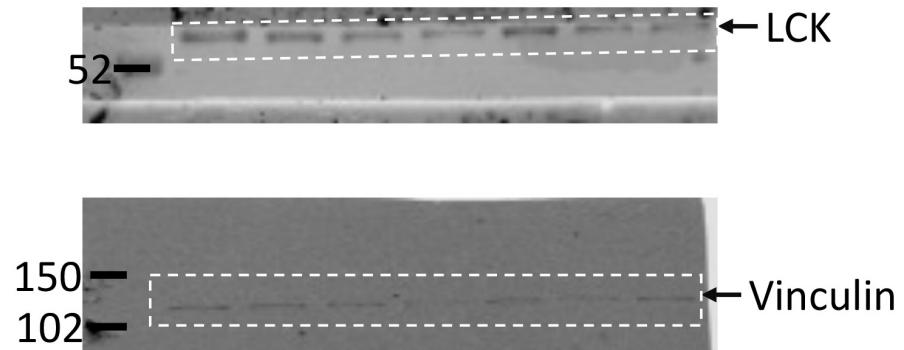
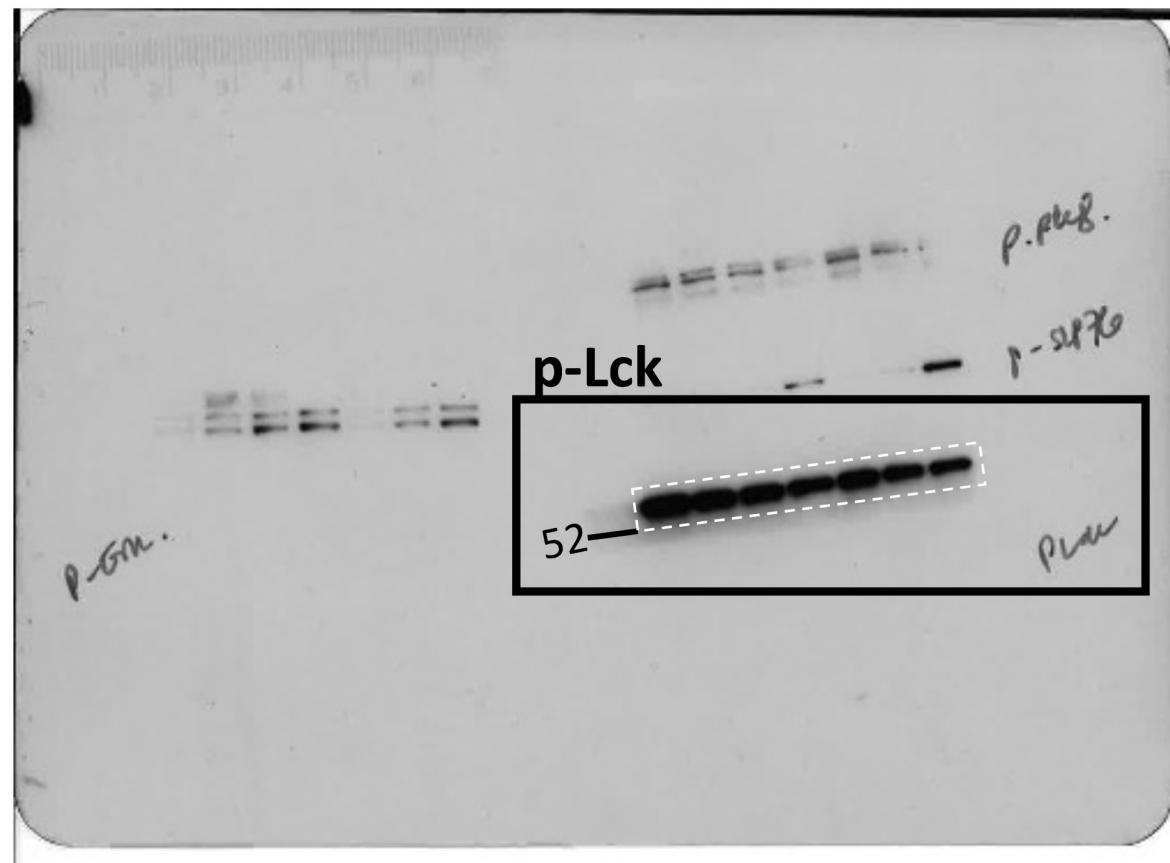
Molecular weights indicated to the left of the gel

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**

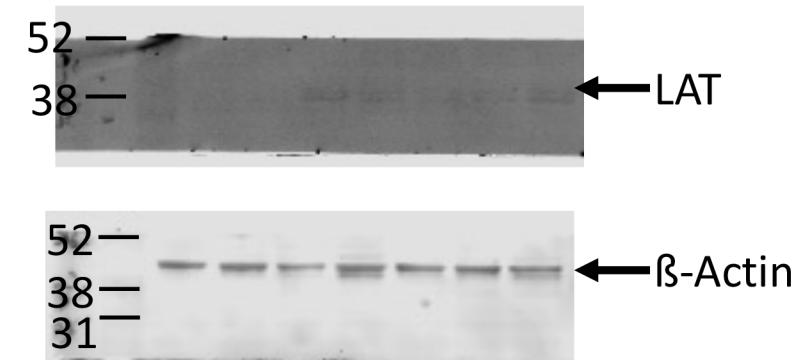
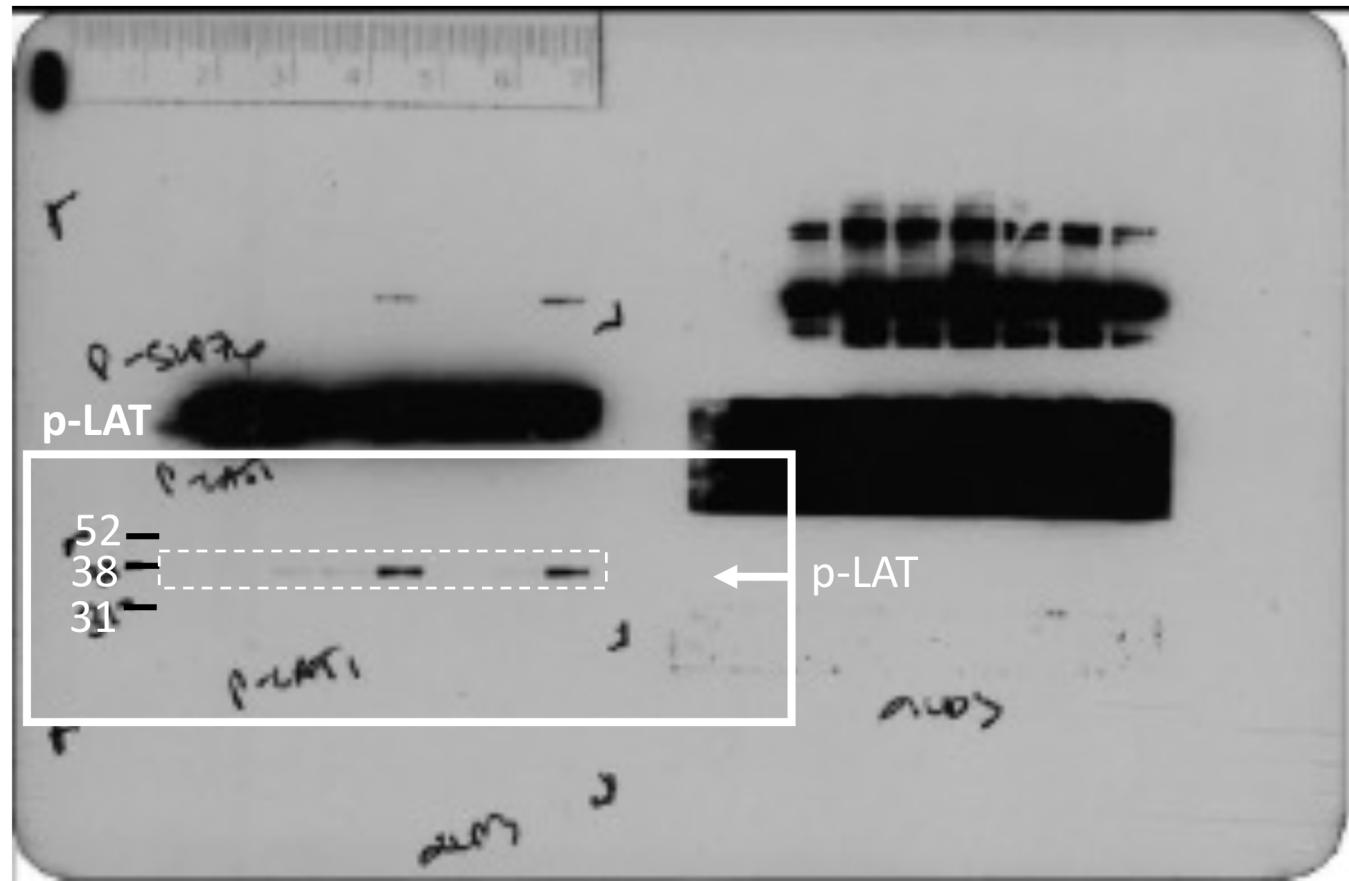
Molecular weights indicated to the left of the gel

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

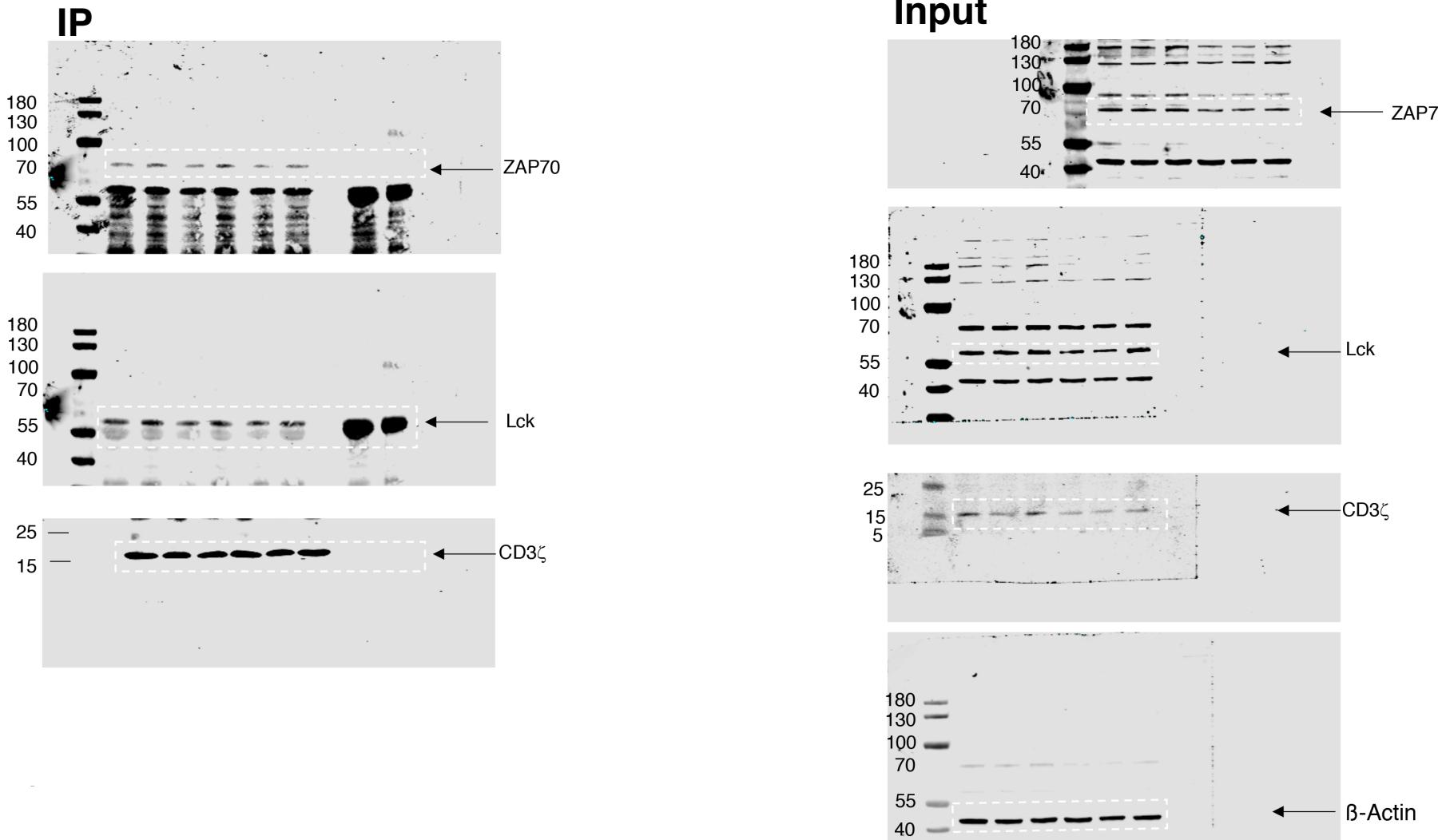
Molecular weights indicated to the left of the gel

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

