Adipocytes promote ovarian cancer chemoresistance

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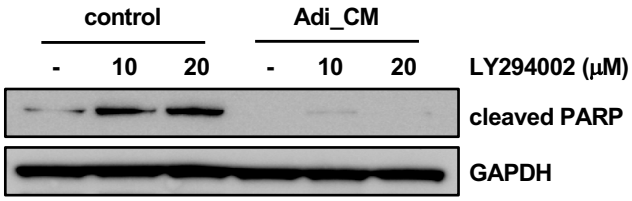
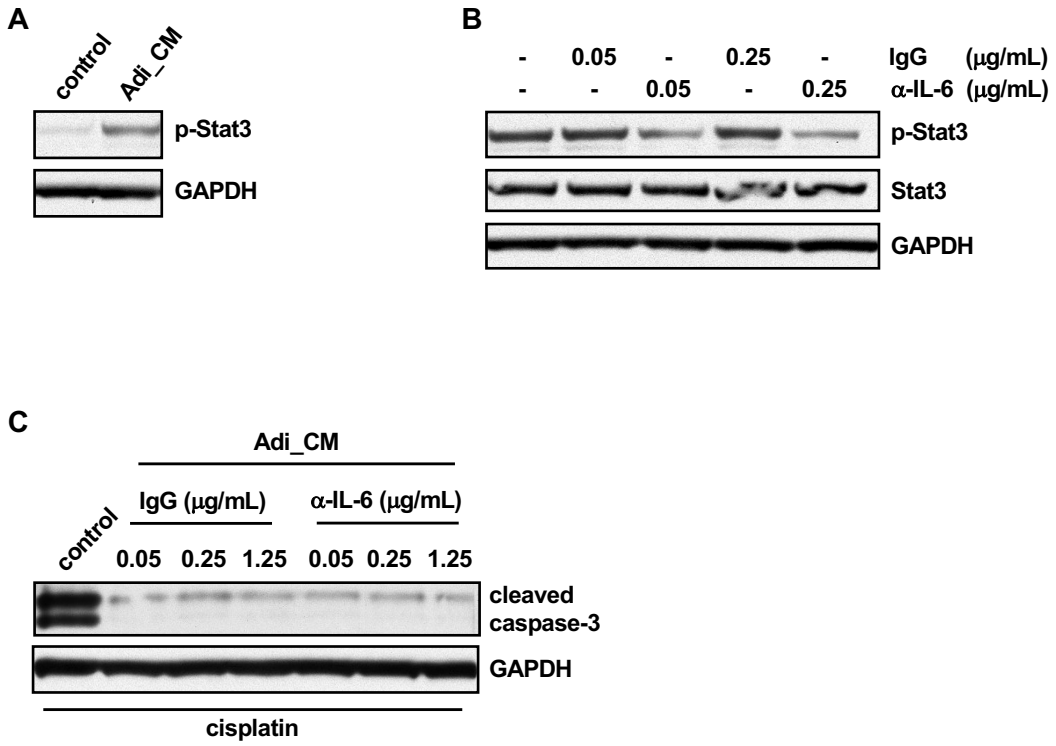
Supplemental Figure 1



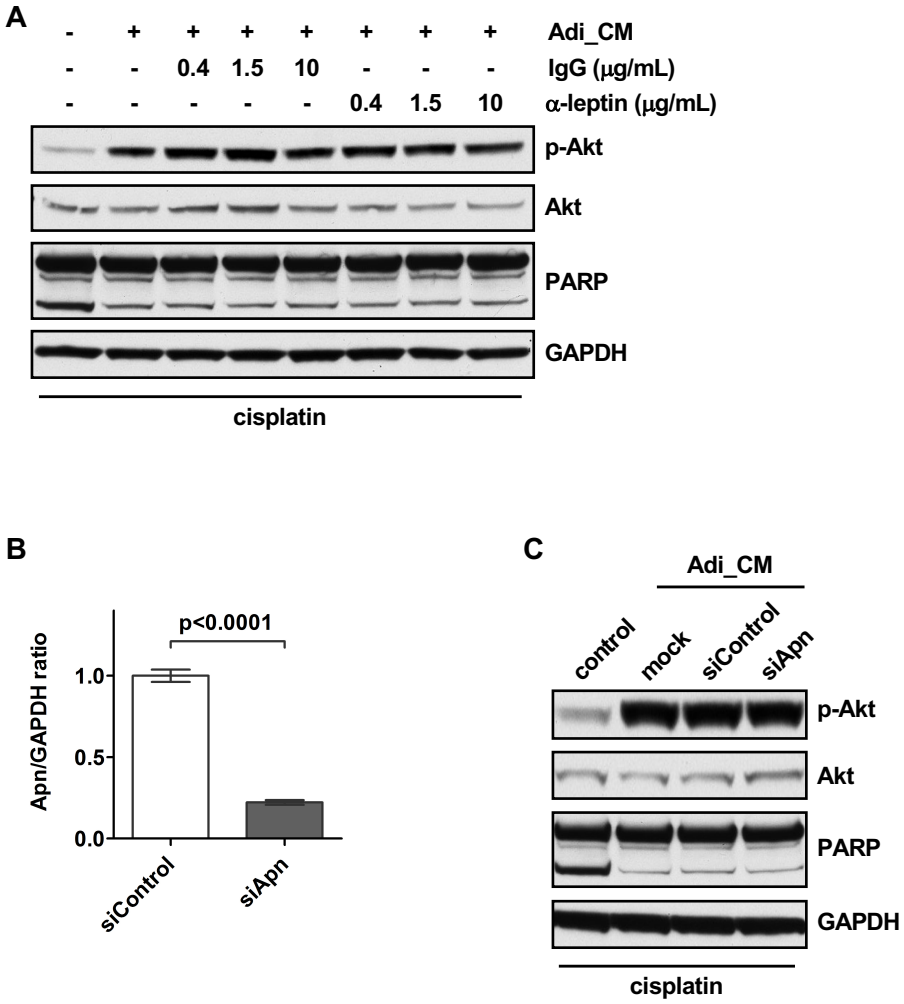
Supplemental Figure 1. LY294002 induces minimal cell death in OVCAR5 cells treated with adipocyte CM.

Supplemental Figure 2



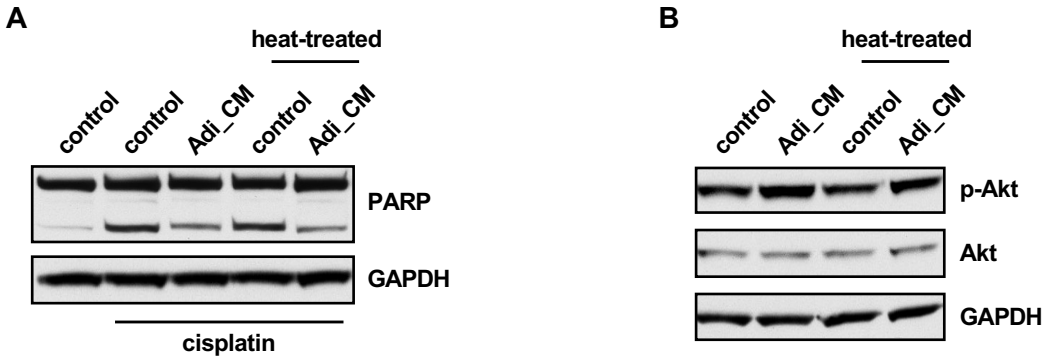
Supplemental Figure 2. Adipocyte-induced chemoresistance is not mediated through the IL-6/Stat3 pathway. A) Adipocyte CM induced Stat-3 phosphorylation. **B**) Treatment of adipocyte CM with IL-6 neutralizing antibody inhibited Stat3 phosphorylation. **C**) Cisplatin-induced apoptosis was inhibited in the presence of adipocyte CM; depletion of IL-6 from the CM did not diminish the chemo-protective effects.

Supplemental Figure 3



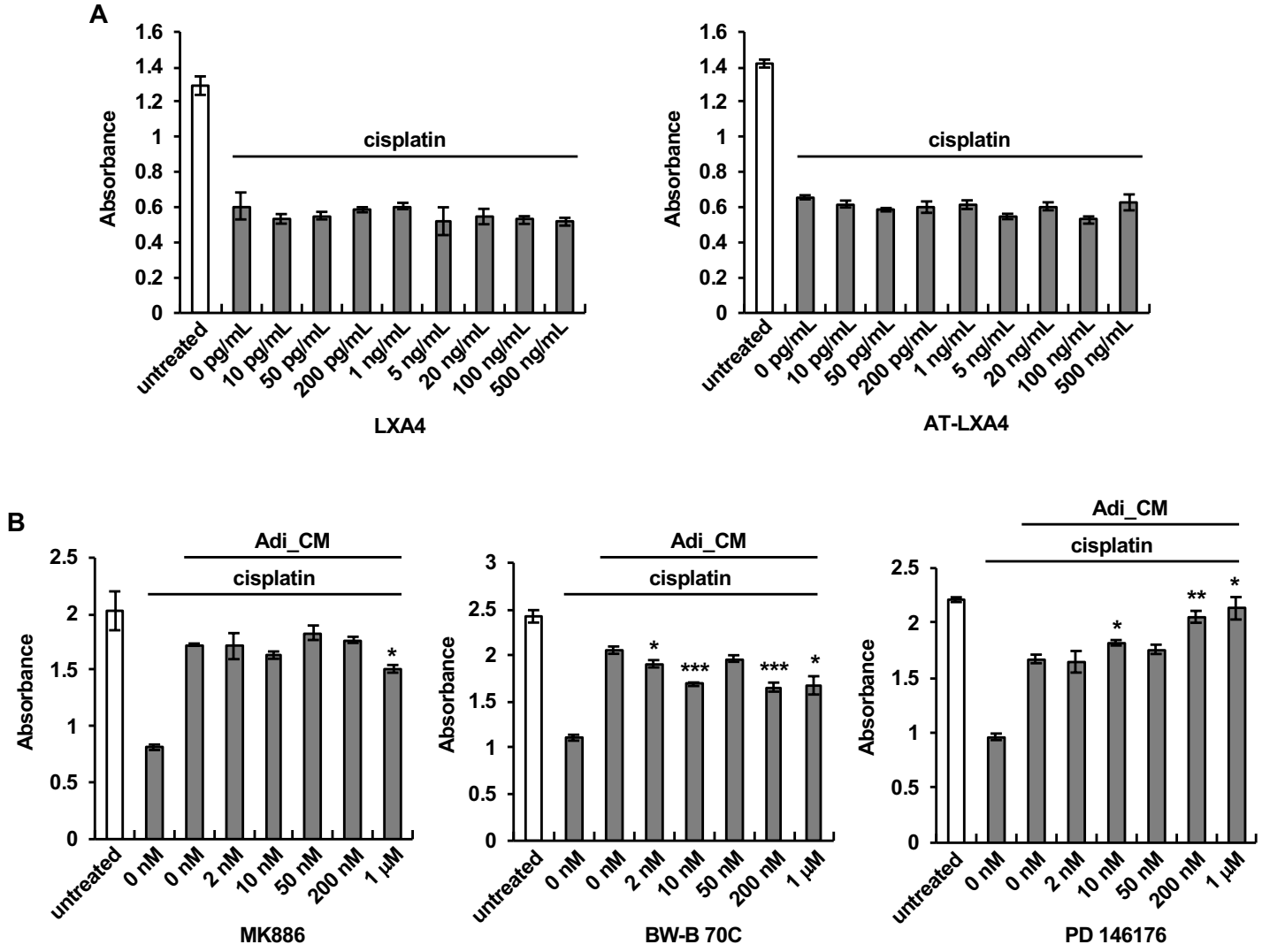
Supplemental Figure 3. Adipocyte-induced chemoresistance is not mediated through leptin or adiponectin. A) Leptin was blocked in the adipocyte CM with a neutralizing antibody and the lack of functional leptin did not compromise the effects of CM on Akt activation and cisplatin-induced apoptosis. **B**) Adiponectin (Apn) was silenced in adipocytes with specific siRNAs and its levels were analyzed with RT-PCR. **C**) Removal of adiponectin in adipocyte CM did not affect CM-induced Akt activation and CM-induced chemoresistance.

Supplemental Figure 4



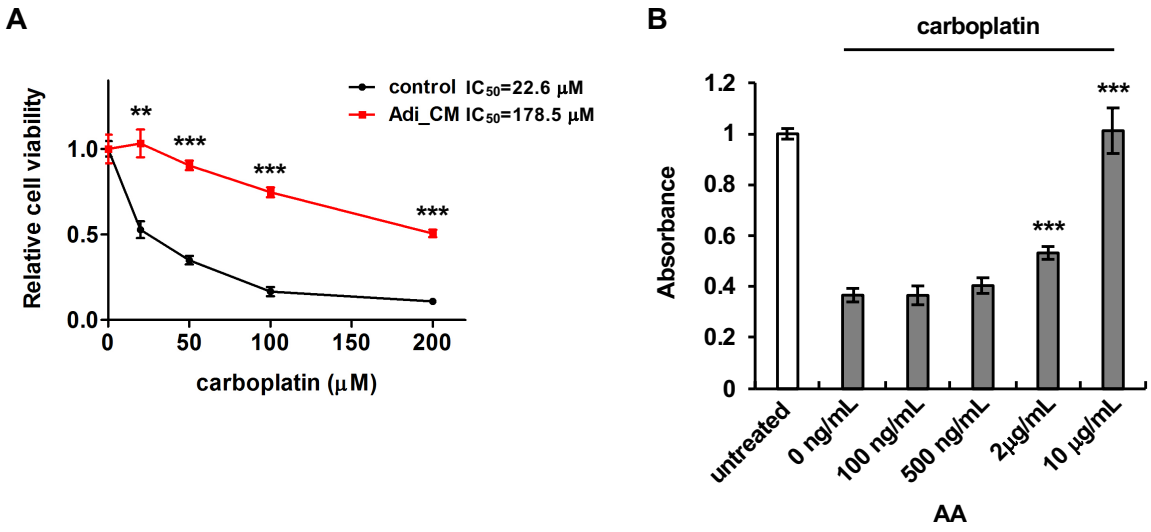
Supplemental Figure 4. The secreted factor(s) from adipocytes that promotes chemoresistance is heat-resistant. Heat treatment of adipocyte CM did not alter the capability of the CM to inhibit cisplatin-induced apoptosis (**A**) or to induce Akt activation (**B**).

Supplemental Figure 5



Supplemental Figure 5. Lipoxins do not mediate adipocyte-induced chemoresistance. OVCAR5 cells were treated with cisplatin together with different concentrations of lipoxin A_4 (LXA_4) or AT-LXA_4 (**A**). Cell viability was analyzed 72 hours later. **B**) Adipocytes were treated with inhibitors against 5- or 15-LOX (MK886, BW-B 70C and PD 146176) before CM was collected. CM deficient of lipoxins was then applied on ovarian cancer cells together with cisplatin. * $p<0.05$, ** $p<0.01$ and *** $p<0.001$, as compared to cells treated with cisplatin and control Adi_CM.

Supplemental Figure 6



Supplemental Figure 6. Adipocyte CM and arachidonic acid increase ovarian cancer cell chemoresistance to carboplatin. A) OVCAR5 cells were incubated with adipocyte CM and different concentrations of carboplatin. **B**) OVCAR5 cells were treated with 50 μM carboplatin and different concentrations of arachidonic acid (AA). Cell viability was analyzed 72 hours later. ** $p<0.01$, *** $p<0.001$.

Supplemental Figure 7

Fig. 1D

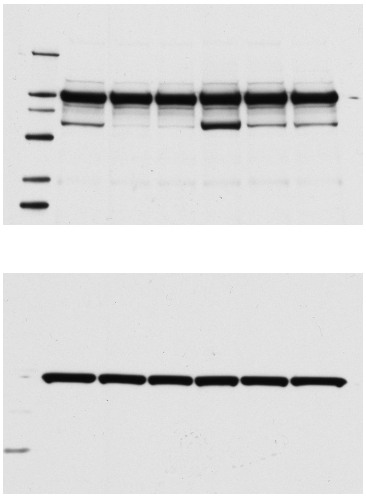


Fig. 2A

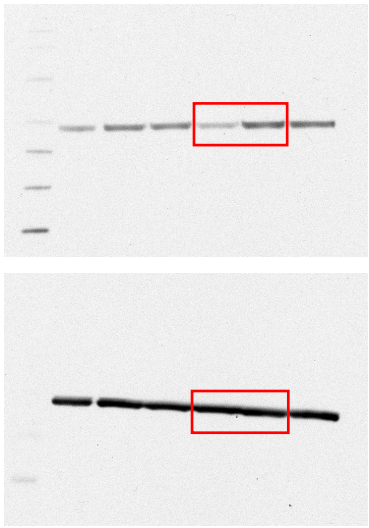


Fig. 2B

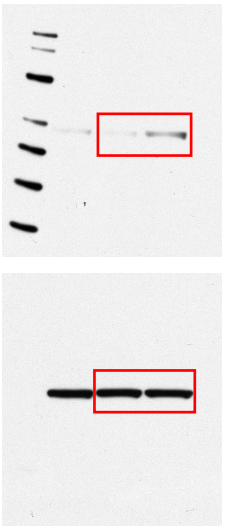


Fig. 2C

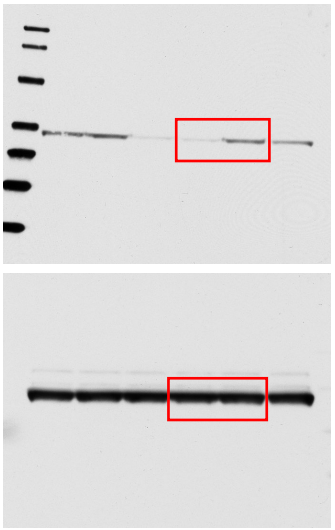


Fig. 2D

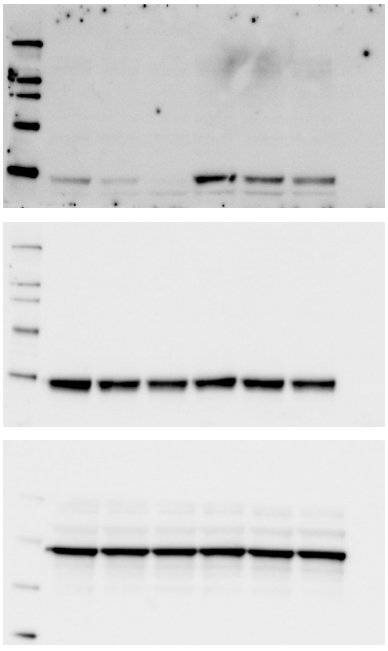


Fig. 2E

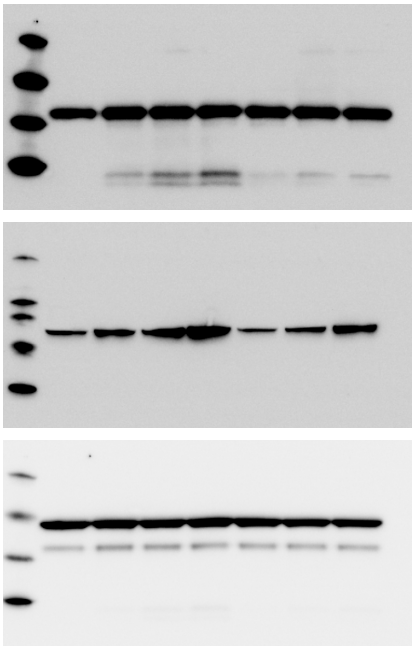
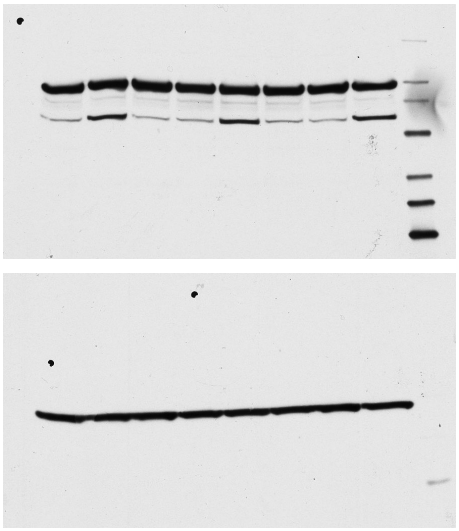


Fig. 3C



Supplemental Figure 7. Uncropped images of Western Blots from Figure 1-3.

Supplemental Figure 8

Fig. 4A

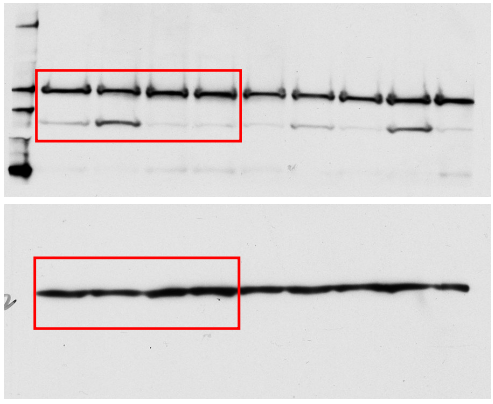


Fig. 5E

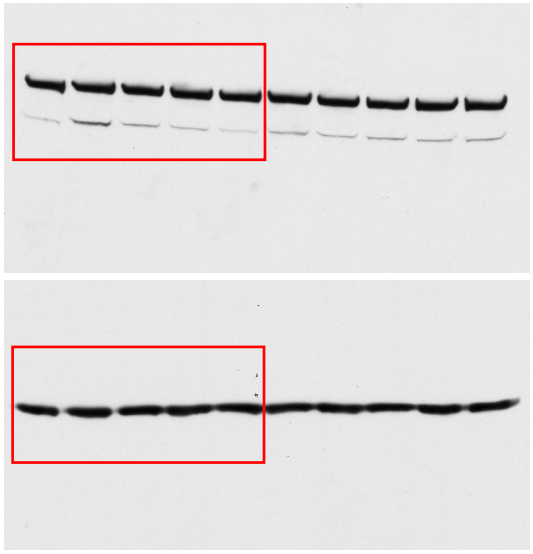


Fig. 5F

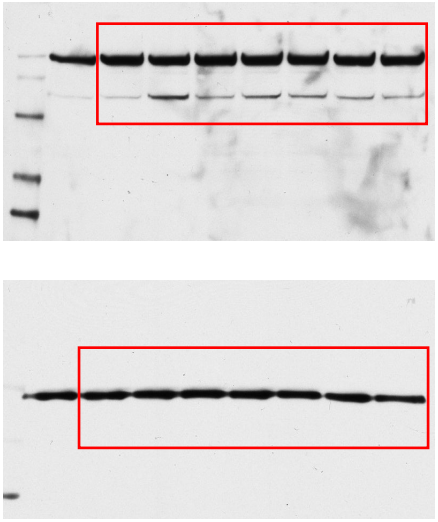


Fig. 6B

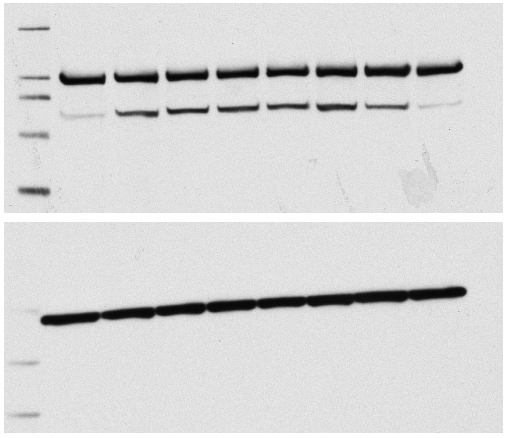
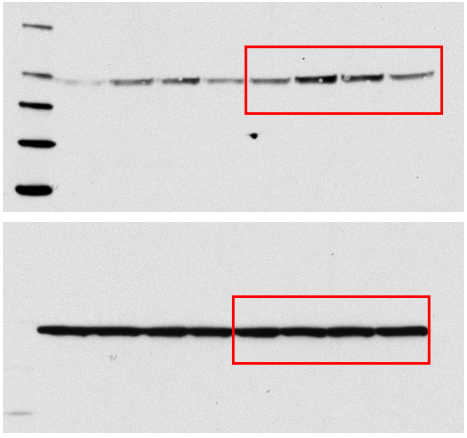


Fig. 6C



Supplemental Figure 8. Uncropped images of Western Blots from Figure 4-6.