



**Figure 6 – supplement 1. Mucinous metaplasia associated with hyperactive MEK-ERK signaling in caerulein treated *Ptf1a* cKO pancreata.** (A-B) IHC for the PanIN markers Claudin-18 (A) and MUC5ac (B) in caerulein-treated *Ptf1a* cKO with corresponding positive and negative controls. Green arrows indicate weakly Claudin-18 positive or Muc5ac positive lesions and red arrows indicate Claudin-18/Muc5ac negative metaplasia. (C-F) IHC for phosphorylated-ERK (p-ERK) on control and *Ptf1a* cKO pancreata 1 week following caerulein treatment. Enlarged boxed area highlights mucinous metaplasia-like lesions from caerulein-treated *Ptf1a* cKO pancreata with strong nuclear p-ERK signal. Scale bars: 200  $\mu$ m.