

**SUPPLEMENTARY FIG. S3.** Expression analyses of endoderm and mesoderm lineage markers during differentiation of Wt and  $Cdk2ap2^{tr/tr}$  mESCs. Endoderm and mesoderm markers were further tested in this figure. These markers had a different expression profile between the Wt and the  $Cdk2ap2^{tr/tr}$  mESCs. Markers such as Acta2 and CA3 had higher expression profiles in the knockout than the Wt at a sooner timepoint. Other markers such as Cer1 and Hnf1a have a similar profile between the Wt and knockout.