

NG2/CSPG4, CD146/MCAM and VAP1/AOC3 are regulated by myocardin-related transcription factors in smooth muscle cells

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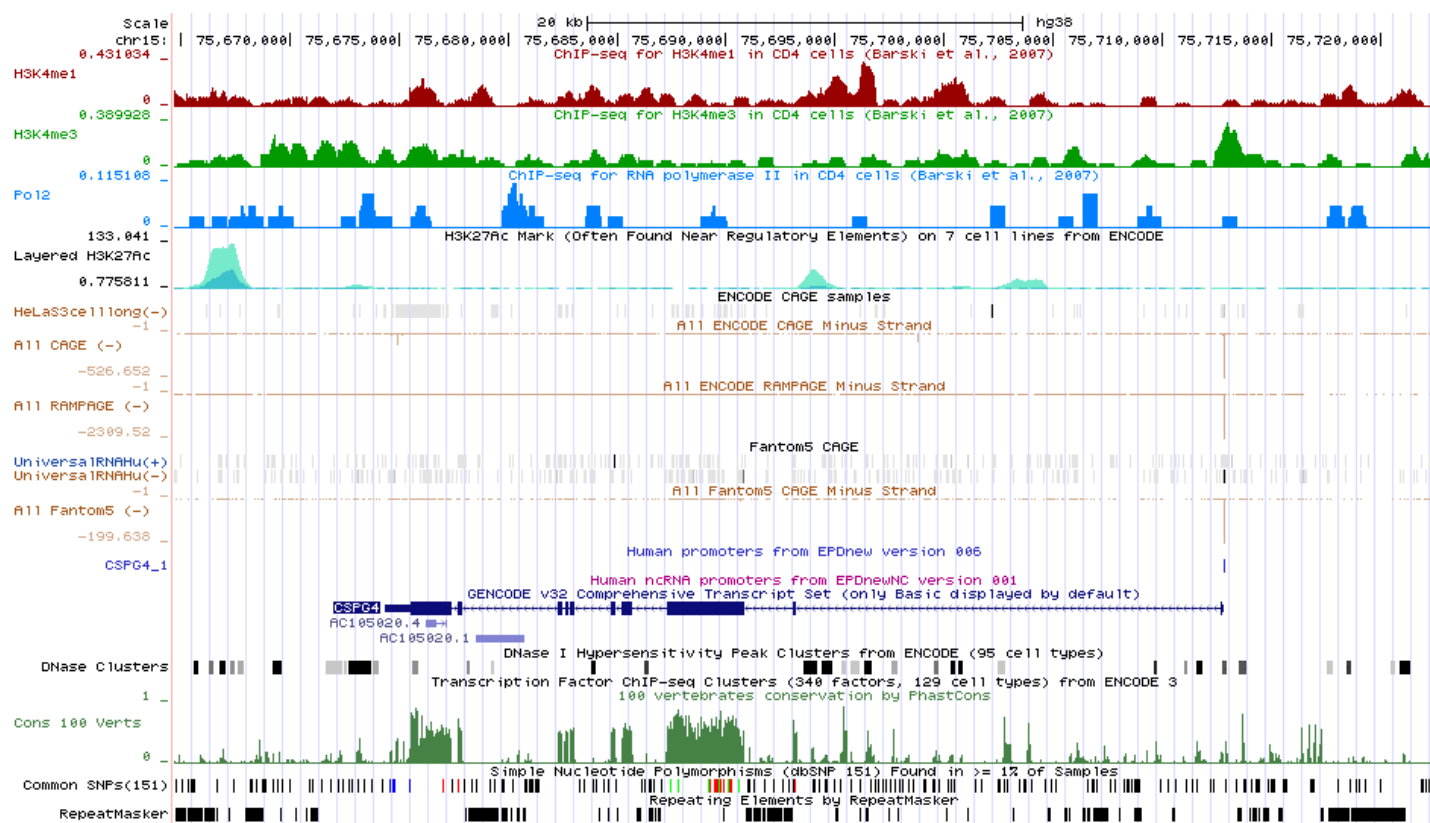
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Running title: MRTF-controlled vascular markers

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SRF binding

Supplementary figure 1B



Supplementary figure 1C

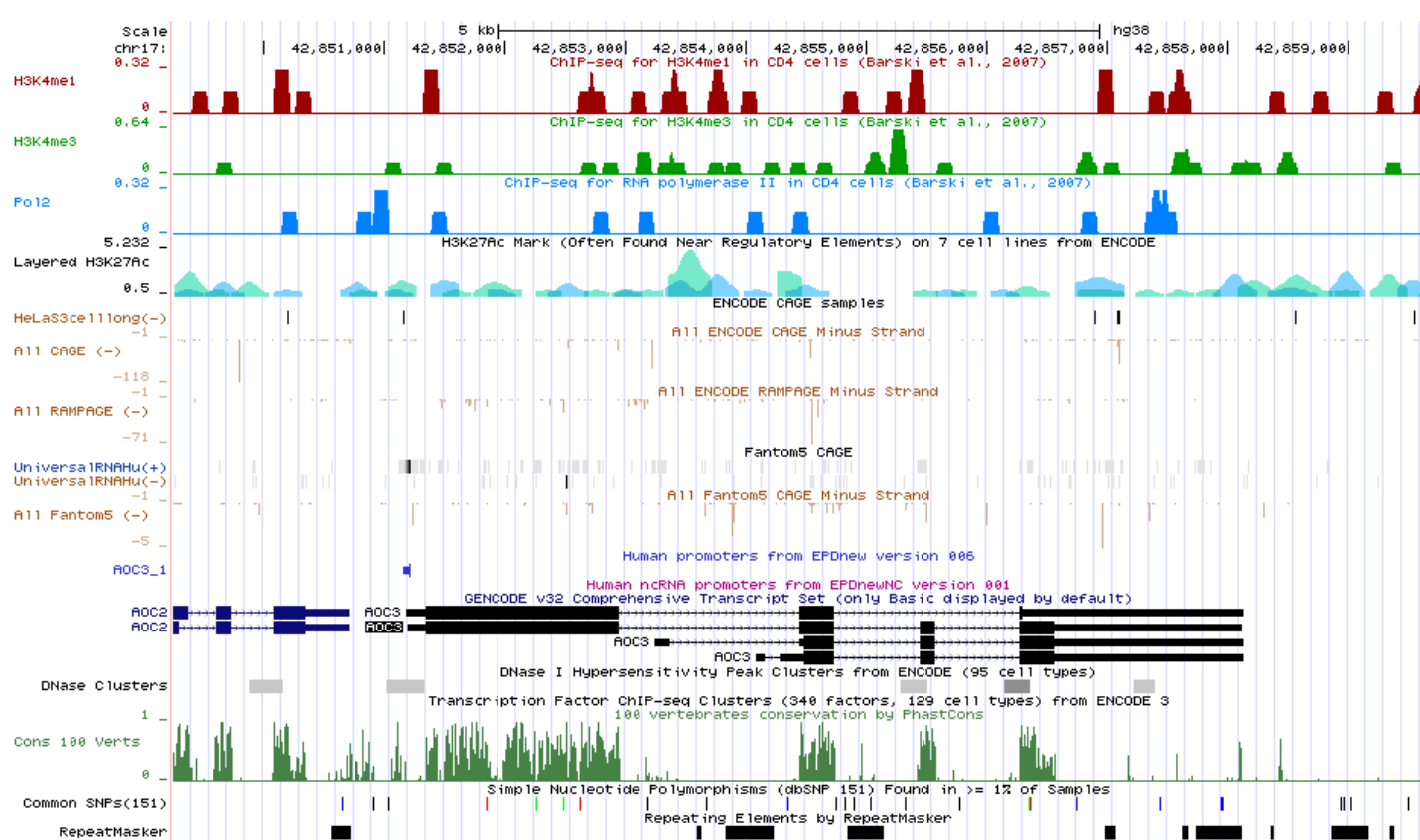


Figure S1B and S1C.
No SRF-binding at the *CSPG4* and *AOC3* loci. SRF binding at the *CSPG4* (B) and *AOC3* (C) loci was inspected using the UCSC Genome Browser. No SRF binding was documented, but the proximal promoter of *AOC3* does contain a computationally defined CArG as described in the text.

Supplementary figure 2

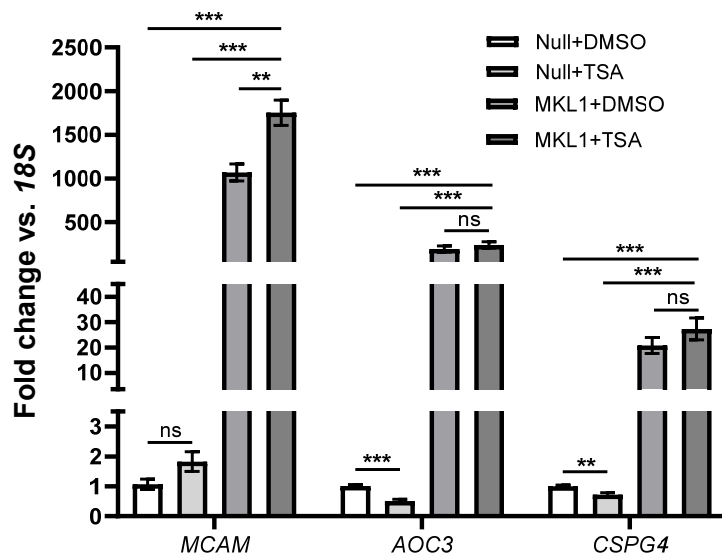


Figure S2.

Trichostatin A, a class I and II histone deacetylase inhibitor, only marginally affects *MCAM*, *AOC3*, and *CSPG4* levels. Treatment of human coronary smooth muscle cells with the deacetylase inhibitor Trichostatin A (TSA 300μM), resulted in a small increase in MRTFA-driven *MCAM* expression, but did not affect *AOC3* or *CSPG4* levels. During basal conditions, TSA marginally reduced *AOC3* and *CSPG4*. mRNA levels were quantified using RT-qPCR. N=6, **P<0.01, and ***P<0.001 for the indicated comparisons.

Supplementary figure 3

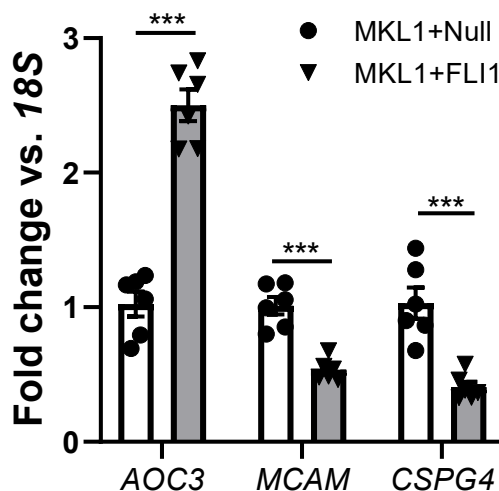
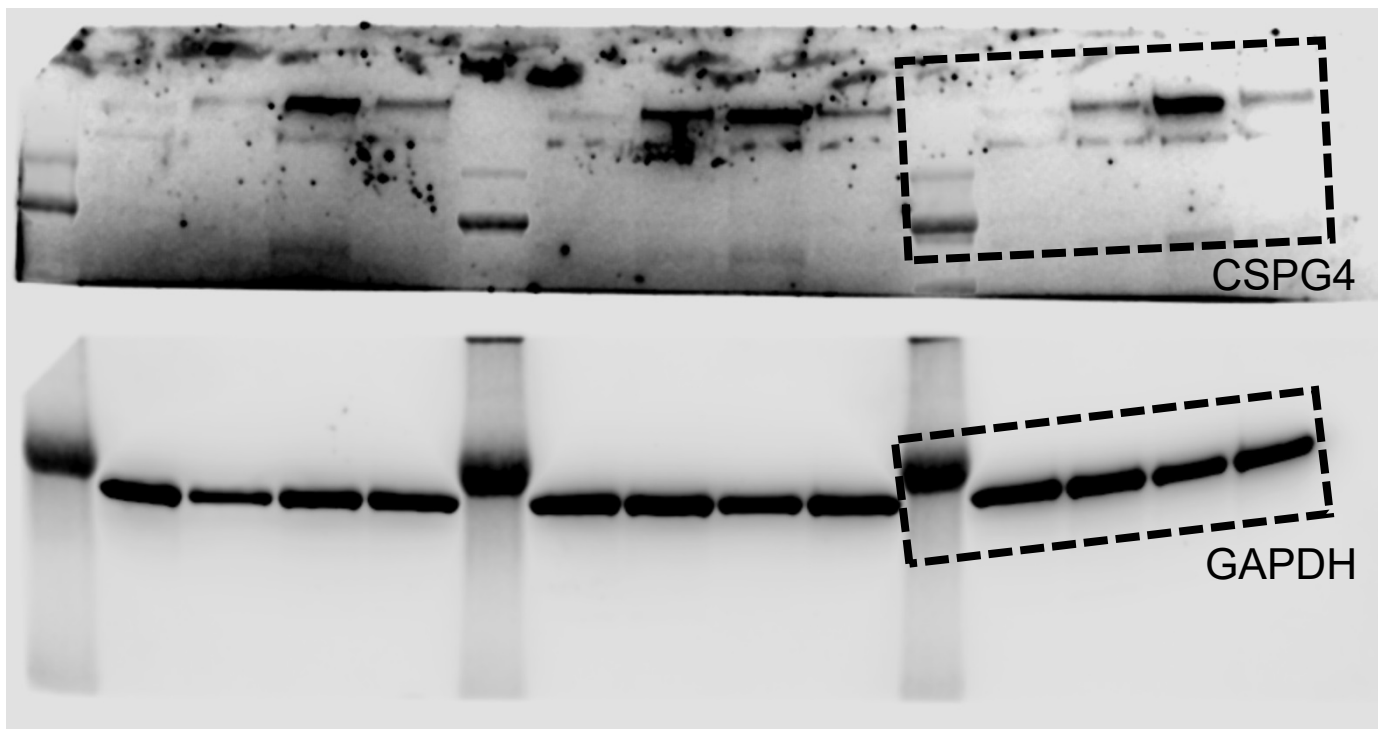


Figure S3.

The ternary complex factor FLI1 increases *AOC* and reduces *MCAM* and *CSPG4* after overexpression of MRTF-A/*MKL1*. Human coronary artery smooth muscle cells were treated with Ad-CMV-MKL1 virus in the presence and absence of Ad-CMV-FLI1 virus. Cells were harvested at 96h. *MCAM*, *AOC3*, and *CSPG4* mRNA levels were quantified using RT-qPCR. Overexpression of *FLI1* reduced *MCAM* and *CSPG4*, but increased *AOC3* expression. *AOC3* thus deviates with respect to its ternary complex factor-dependence. N=6, ***P<0.001 for the indicated comparisons.

Supplementary figure 4 A.



Supplementary figure 4 B.

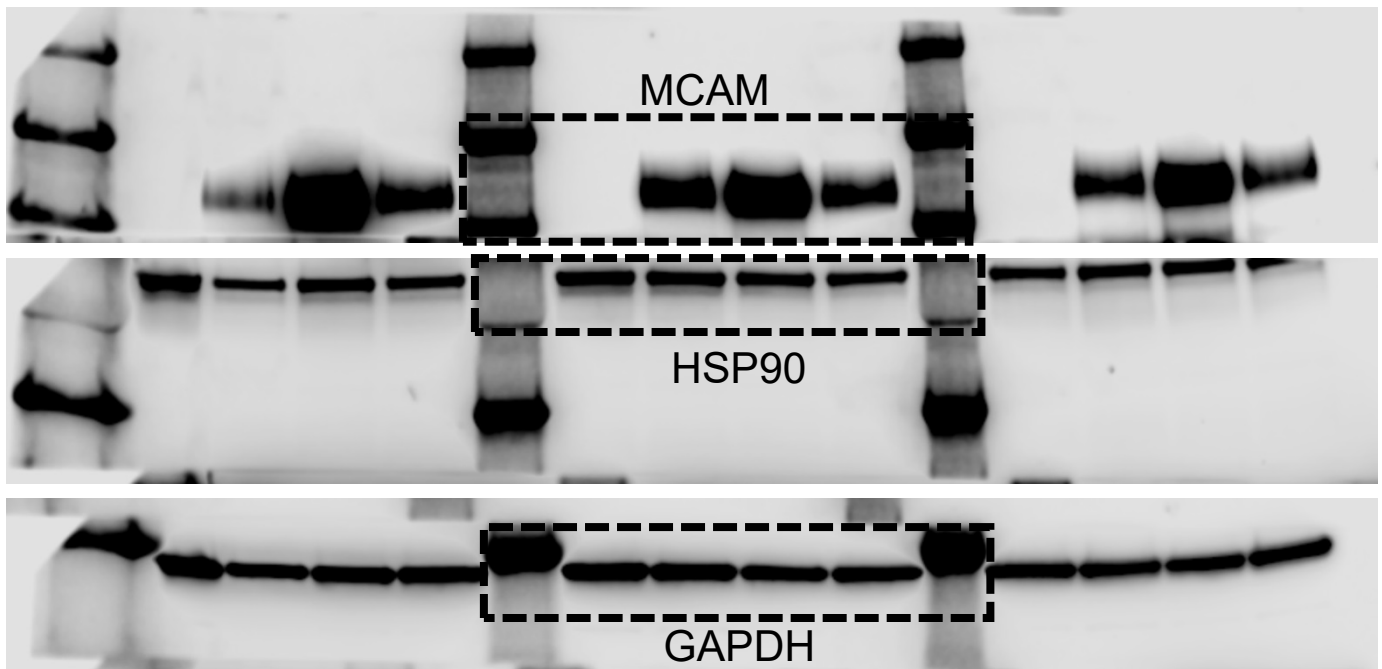


Figure S4A and B

Full length blots for figures 1F (A) and 2F (B) in the manuscript. Crop lines are indicated for the respective targets.

Supplementary figure 4 C.

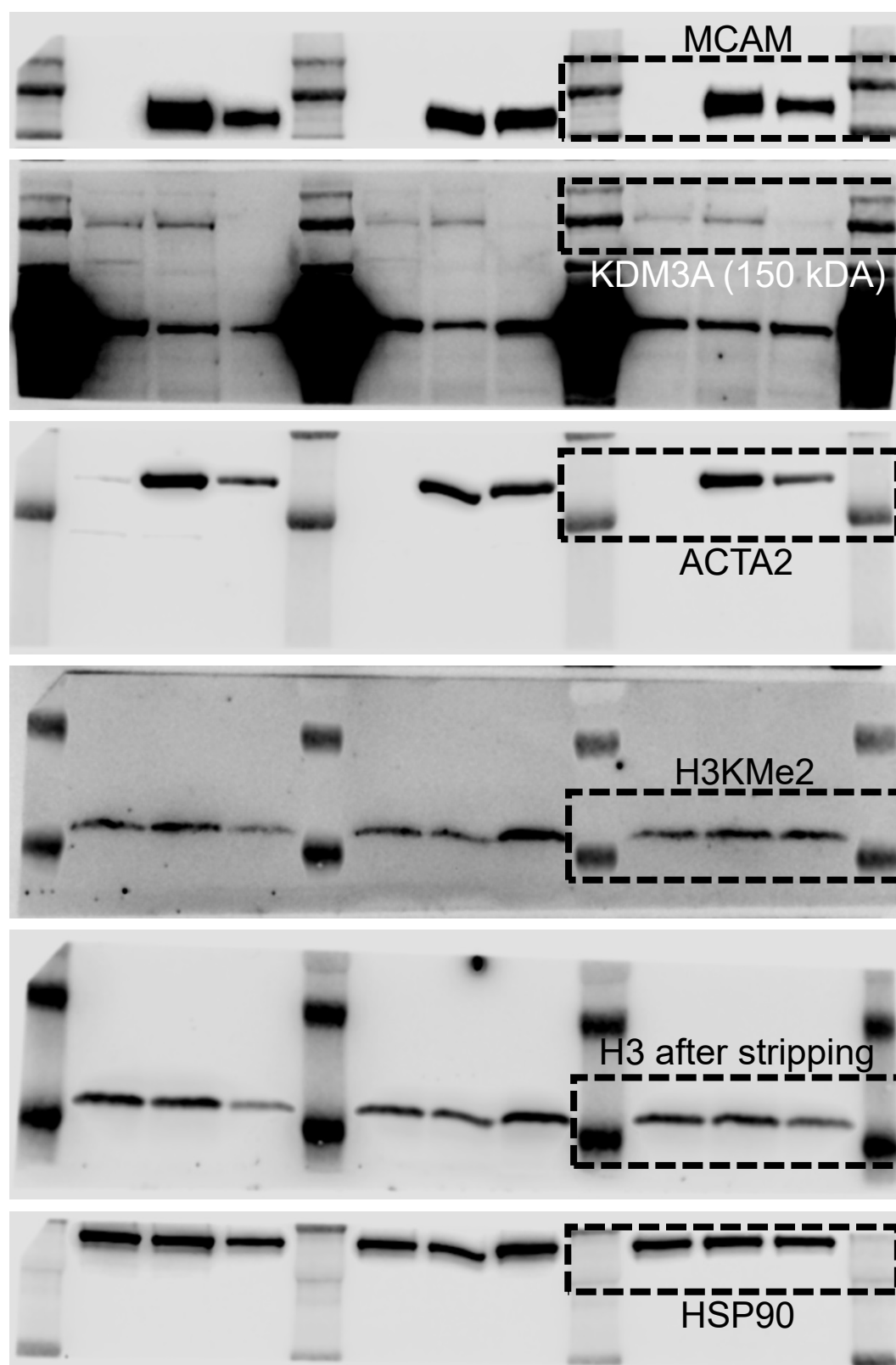


Figure S4C.

Full length blots for figure 4H in the manuscript. Crop lines for the respective targets are indicated.