

**Supplemental Figure S1. Treatment of TAA tissues for histological analysis.**

Small fragments of fresh aortic tissue excised from surgical operated non-MFS TAA patients, after adventitia removal, were adhered to the bottom of a 24- or 6-well multiwell and maintained in culture medium with TGF- $\beta$ 1 or mimic-632 for one week. Then, samples were collected and fixed in 10% neutral-buffered formalin for histological and immunohistochemical analysis.

