### **Supplementary Figure 1.**

Normal skin fibroblasts were incubated with TAK242 (as indicated) for indicated periods. **A.** After 24 h, cytotoxicity was determined (percent of LDH release). **B.** Fibroblasts from wt and TLR4 mutant mice skin transiently transfected with COL1A1-luc were incubated in medium with endotoxin-stripped Fn  $^{EDA}$  (1 ug/ml) in the presence or absence of TAK242 (3uM) for 24 h. Whole-cell lysates were assayed for their luciferase activities. Results are means  $\pm$  SD from thee determinations. \*P = 0.004, Fn  $^{EDA}$  alone versus treated with TAK242 in wt. P = ns, Fn  $^{EDA}$  alone versus treated with TAK242 in TLR4 mutant. Sidak's multiple comparison test. ns, not significant.

#### **Supplementary Figure 2.**

Fibroblasts from three healthy donors' skin were incubated in medium with TAK242 (3uM) for 24 h and mRNA levels were determined by real-time qPCR. Results, normalized with GAPDH, are means  $\pm$  s.d. compared to vehicle-treated controls. Control versus TAK242; Paired t-test. P = ns. not significant. Each dot and color represents an individual.

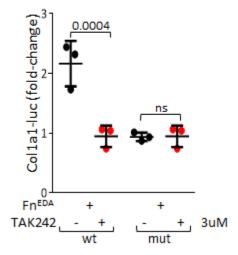
## **Supplementary Table 1**

#### SSc fibroflasts derived from the subjects indicated below

Sample ID	Age	Sex	dc/lc	Disease stage	<b>MRSS</b>
SSc1107	48	M	dcSSc	Early	25
SSc1121	47	F	dcSSc	Late	26
SSc1068	49	F	dcSSc	Late	27
SSc1097	64	F	dcSSc	Early	9

dcSSc diffuse cutaneous SSc; F, female; M, male; mRSS, modified Rodnan skin score (1 to 51).

## Supplementary Fig. 1



# Supplementary Fig. 2

