

**Table S9** Comparison of proteins identified in the secretome (EVs and sSASP) of VSMCs and fibroblasts and epithelial cells (SASP Atlas data); (**bold font** –  $p < 0.001$ ; ↑ higher level in VSMC)

H<sub>2</sub>O<sub>2</sub> – hydrogen peroxide induced senescence, IR – X radiation induced senescence, RS – replicative senescence,

**Proteins common for EVs from H<sub>2</sub>O<sub>2</sub> VSMC, RS VSMC, IR fibroblasts**

H <sub>2</sub> O <sub>2</sub> VSMC – IR fibro		H <sub>2</sub> O <sub>2</sub> VSMC– RS VSMC– IR fibro			RS VSMC– IR fibro	
Protein ID	fold change log <sub>2</sub>	Protein ID	fold change log <sub>2</sub> H <sub>2</sub> O <sub>2</sub>	fold change log <sub>2</sub> RS	Protein ID	fold change log <sub>2</sub>
<b>WNT5A</b>	3,34 ↑	SERPINF1	2,67 ↑	1,74 ↑	CALR	0,75
<b>A2M</b>	<b>1,81</b>	<b>THBS1</b>	<b>0,81</b>	<b>1,54</b>	COL4A2	0,75
<b>FBLN1</b>	1,2	GPX1	0,46	0,41	<b>PDIA3</b>	0,71
CLU	0,9	PLOD1	0,4	<b>0,47</b>	<b>P4HB</b>	0,68
<b>ITIH2</b>	0,84	TNC	0,44	0,41	<b>FKBP10</b>	0,67
POSTN	0,6	LRP1	0,18	<b>0,3</b>	<b>HSPA5</b>	0,6
<b>COL12A1</b>	0,57	<b>CLTC</b>	<b>0,16</b>	<b>0,29</b>		
PTX3	0,55					
<b>PXDN</b>	0,53					
ACTN1	0,53					
<b>GREM1</b>	0,41					
<b>LCAT</b>	0,36					
<b>COL1A2</b>	0,35					
C1R	0,34					
<b>GFP1</b>	0,34					
C1S	0,33					
<b>TGFBI</b>	0,3					
IARS	0,2					
<b>EMILIN1</b>	0,18					
RUVBL2	0,09					

**Proteins common for sSASP form H<sub>2</sub>O<sub>2</sub> VSMC, RS VSMC, IR fibroblasts, IR epithelial cells**

H <sub>2</sub> O <sub>2</sub> VSMC – IR fibro – IR epi		H <sub>2</sub> O <sub>2</sub> VSMC – RS VSMC – IR fibro			H <sub>2</sub> O <sub>2</sub> VSMC – RS VSMC – IR epi		
Protein ID	fold change log <sub>2</sub>	Protein ID	fold change log <sub>2</sub> H <sub>2</sub> O <sub>2</sub>	fold change log <sub>2</sub> RS	Protein ID	fold change log <sub>2</sub> H <sub>2</sub> O <sub>2</sub>	fold change log <sub>2</sub> RS
<b>GDF15</b>	0,91	<b>IGFBP5</b>	<b>1,47</b>	<b>2,71</b>	ARSA	2,31 ↑	2,77 ↑
		ALDOC	1,06 -	<b>2,13 ↑</b>			

H <sub>2</sub> O <sub>2</sub> VSMC – IR fibro		H <sub>2</sub> O <sub>2</sub> VSMC – IR epi		RS VSMC – IR fibro		RS VSMC – IR epi	
Protein ID	fold change log <sub>2</sub>	Protein ID	fold change log <sub>2</sub>	Protein ID	fold change log <sub>2</sub>	Protein ID	fold change log <sub>2</sub>
<b>RBP4</b>	2,77	CAPNS1	2 ↑	<u>FN1</u>	4,03 ↑	ACTC1	2,78 ↑
<b>GC</b>	2,68 ↑	<b>TGM2</b>	<b>1,99 ↑</b>	PLOD3	1,13	<u>ATP6V1B2</u>	1,85 ↑
<b>TGFBI</b>	2,25 ↑	PRDX3	0,96 ↑			PPP2R1A	1,7 ↑
<b>CTGF</b>	2,2 ↑						
<b>CTHRC1</b>	1,35 ↑						
<b>GDI1</b>	0,72						
<b>THBS1</b>	0,6						
<b>TPI1</b>	0,59						
<b>VCL</b>	0,2						