

Supplementary file. 1

To investigate the cytoprotecting potential of NF-hAM from induced oxidative stress, HSF cells were exposed to H₂O₂ treatment at a final concentration of 300 μ M for 12 hours, followed by 48 hours of NF-hAM treatment. Then, we studied their survival by MTT assay (Fig. 1) and resistance to apoptosis induction (Fig. 1). Our analysis demonstrated a significantly higher proliferation rate in the NF-hAM group as compared to H₂O₂-treated cells (Fig. 1).

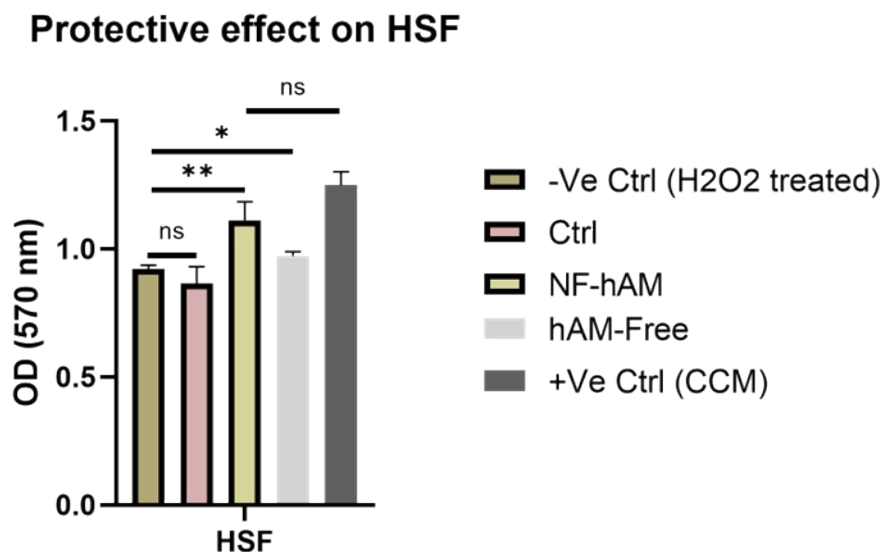


Fig. 1 NF-hAM treatment protects HSF from H₂O₂ cytotoxicity. MTT assay to investigate HSF proliferative capacity upon H₂O₂ treatment, followed by NF-hAM treatments.

Table 1: Primer sequence used in RT-qPCR analysis.

Gene (protein)	Primer	Sequence (5' to 3')
β -actin	Forward	CACCATTTGGCAATGAGCGGTTC
	Reverse	AGGTCTTTGCGGATGTCCACGT
ID 1	Forward	GCTGTTACTCACGCCTCAA
	Reverse	CAACTGAAGGTCCCTGATGTAG
ID2	Forward	CAAGAAGGTGAGCAAGATGGA
	Reverse	GGTGATGCAGGCTGACAATA
VEGFA	Forward	ATCTGCATGGTGATGTTGGA
	Reverse	GGGCAGAATCATCACGAAGT
PDGF	Forward	GATACTTTGCGCGCACACAC
	Reverse	GGTTTTCTCTTTGCAGCGAGG
Ki-67	Forward	ACGAGACGCCTGGTTACTATC

PCNA	Reverse	GCTCATCAATAACAGACCCATTTAC
	Forward	GGCCGAAGATAACGCGGATAC
Snail	Reverse	GGCATATACGTGCAAATTCACCA
	Forward	ACCACTATGCCGCGCTCTT
Vimentin	Reverse	GGTCGTAGGGCTGCTGGAA
	Forward	TGTCCAAATCGATGTGGATGTTTC
	Reverse	TTGTACCATTCTTCTGCCTCCTG

Raw data

Table format: Grouped		Group A			Group B			Group C			Group D		
		Ctrl			NF-hAM			NF-free hAM			hAM		
		A:1	A:2	A:3	B:1	B:2	B:3	C:1	C:2	C:3	D:1	D:2	D:3
1	BMSCs	0.591	0.581	0.585	0.615	0.606	0.610	0.585	0.575	0.580	0.59	0.60	0.59
2	HSF	0.456	0.496	0.476	0.504	0.512	0.508	0.450	0.470	0.464	0.48	0.49	0.48
3	AMSCs	0.540	0.586	0.594	0.764	0.775	0.700	0.610	0.661	0.670	0.69	0.68	0.69
4	Title												
5	Title												

Fig.2 A. raw data for MTT analysis of BMSCs, AMSCs, and HSF under different experimental conditions

Table format: Grouped		Group A			Group B			Group C		
		Ctrl			NF-hAM			NF-free hAM		
		A:1	A:2	A:3	B:1	B:2	B:3	C:1	C:2	C:3
1	G0-G1	59.800	61.200	63.300	61.500	62.500	62.900	57.400	56.800	57.600
2	S	6.680	6.370	6.180	13.500	12.200	13.100	10.400	10.900	8.430
3	G2-M	13.100	14.400	15.500	13.200	12.400	12.500	13.500	10.900	10.400

Fig. 2C raw data for Bar graphs indicating BMSC population percentages in different cell cycle phases

Table format: Grouped		Group A			Group B			Group C		
		Ctrl			NF-hAM			NF-free hAM		
		A:1	A:2	A:3	B:1	B:2	B:3	C:1	C:2	C:3
1	Annexin V + PI -	1.370	1.570	1.510	0.310	0.350	0.330	0.370	0.550	0.370

Table format: Grouped		Group A			Group B			Group C		
		Ctrl			NF-hAM			NF-free hAM		
		A:1	A:2	A:3	B:1	B:2	B:3	C:1	C:2	C:3
1	Annexin V + PI +	3.300	3.370	3.100	1.560	1.720	1.570	1.860	1.740	1.880

Table format: Grouped		Group A			Group B			Group C		
		Ctrl			NF-hAM			NF-free hAM		
		A:1	A:2	A:3	B:1	B:2	B:3	C:1	C:2	C:3
1	Annexin V - PI +	17.100	17.100	17.400	15.100	14.500	15.200	11.300	10.800	10.800

Fig.3B, C, and D: apoptosis analysis

Table format: XY		X	Group A			Group B		
		BMSCs	NF-hAM			NF-free hAM		
		X	A:Y1	A:Y2	A:Y3	B:Y1	B:Y2	B:Y3
1	Ctrl		0.138	0.135	0.150	0.138	0.135	0.136
2	5 µg/ml		0.167	0.165	0.166	0.156	0.151	0.154
3	50 µg/ml		0.173	0.166	0.165	0.160	0.148	0.155

Fig. 4B MTT assay for BMSCs treated with NF-hAM for 24 hours

Table format: XY		X	Group A			Group B		
		BMSCs	NF-hAM			NF-free hAM		
		X	A:Y1	A:Y2	A:Y3	B:Y1	B:Y2	B:Y3
	Ctrl		0.366	0.365	0.369	0.366	0.365	0.369
	5 µg/ml		0.405	0.406	0.405	0.376	0.365	0.366
	50 µg/ml		0.408	0.409	0.410	0.359	0.357	0.358

Fig. 4D MTT assay for BMSCs treated with NF-hAM for 48 hours

Table format: XY		X	Group A			Group B		
		BMSCs	NF-hAM			NF-free hAM		
		X	A:Y1	A:Y2	A:Y3	B:Y1	B:Y2	B:Y3
1	Ctrl		0.388	0.385	0.382	0.388	0.385	0.382
2	5 µg/ml		0.412	0.416	0.414	0.384	0.388	0.385
3	50 µg/ml		0.423	0.426	0.425	0.383	0.397	0.390

Fig. 4F MTT assay for BMSCs treated with NF-hAM for 72 hours

Table format: XY		X	Group A			Group B		
		HSF	24 hours			48 hours		
		X	A:Y1	A:Y2	A:Y3	B:Y1	B:Y2	B:Y3
1	Ctrl		0.263	0.257	0.251	0.376	0.369	0.373
2	5 µg/ml		0.264	0.271	0.268	0.401	0.416	0.405
3	10 µg/ml		0.271	0.272	0.272	0.416	0.400	0.410
4	50 µg/ml		0.275	0.277	0.280	0.436	0.415	0.425
5	Title							

Fig. 4I MTT assay for HSF treated with NF-hAM for 24 and 48 hours

Table format: Grouped		Group A			Group B			Group C		
		Ctrl			NF-hAM			NF-free hAM		
		A:1	A:2	A:3	B:1	B:2	B:3	C:1	C:2	C:3
1	Glucose concentration	0.682	0.679	0.655	0.142	0.139	0.148	0.258	0.256	0.295

Fig. 6A BMSCs glucose consumption

Table format: Grouped		Group A			Group B			Group C		
		Ctrl			NF-hAM			NF-free hAM		
		A:1	A:2	A:3	B:1	B:2	B:3	C:1	C:2	C:3
1	Lactate production	0.501	0.504	0.505	0.556	0.534	0.547	0.510	0.510	0.508

Fig. 6B BMSCs lactate production

Table format: Grouped		Group A			Group B			Group C		
		Ctrl			NF-hAM			hAM-Free		
		A:1	A:2	A:3	B:1	B:2	B:3	C:1	C:2	C:3
1	H2O2 production	0.123	0.125	0.131	0.084	0.082	0.077	0.076	0.082	0.078

Fig. 6C HSF H2O2 production

Table format: Grouped		Group A			Group B			Group C		
		Ctrl			NF-hAM			hAM-Free		
		A:1	A:2	A:3	B:1	B:2	B:3	C:1	C:2	C:3
1	Glucose concentration	1.443	1.462	1.363	1.117	0.955	1.181	1.308	1.083	1.206

Fig. 6D HSF glucose consumption

Table format: Grouped		Group A			Group B			Group C		
		Ctrl			NF-hAM			hAM-Free		
		A:1	A:2	A:3	B:1	B:2	B:3	C:1	C:2	C:3
1	Lactate production	0.450	0.470	0.422	0.460	0.476	0.500	0.425	0.422	0.384

Fig. 6E HSF lactate production

Table format: Grouped		Group A			Group B			Group C		
		Ctrl			NF-hAM			hAM-Free		
		A:1	A:2	A:3	B:1	B:2	B:3	C:1	C:2	C:3
1	Glucose concentration	2.295	2.249	2.413	1.847	1.944	2.049	2.444	2.192	2.270

Fig. 6F AMSCs glucose consumption

Table format: Grouped		Group A			Group B			Group C		
		Ctrl			NF-hAM			hAM-Free		
		A:1	A:2	A:3	B:1	B:2	B:3	C:1	C:2	C:3
1	Lactate production	1.286	1.412	1.446	2.056	2.060	2.182	1.499	1.152	1.236

Fig. 6G AMSCs lactate production