

Supplementary materials

Article Title:

Radiation-induced surge of macrophage foam cell formation, oxidative damage, and cytokine release is attenuated by a nanoformulation of curcumin

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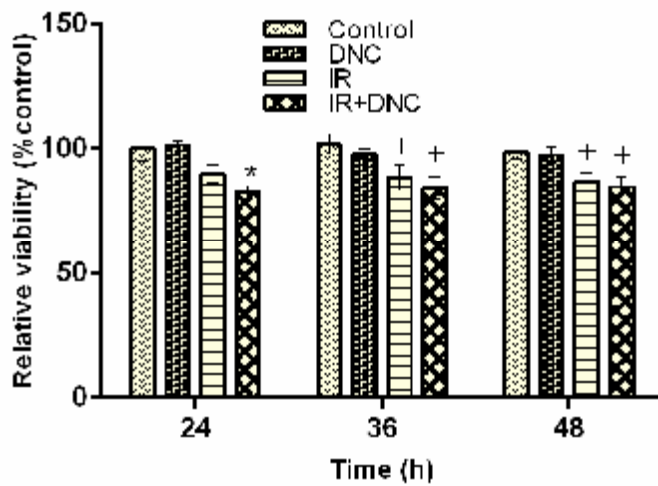
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Supplementary Table List of genes and sequence of primers in this study

Gene name NCBI RefSeq	Summary		Primers (5'->3')-	Amplicon size (bp)
CD36 NM_001001548 and 5 other variants	Encodes CD36 protein which is a membrane glycoprotein, present on different cells, including platelets, monocytes, and macrophages. Macrophage CD36 functions in oxLDL uptake and foam cell formation, the initial critical stage of atherosclerosis (Park 2014).	For	GGCTGTGACCGGAACTGTG	92
		Rev	AGGTCTCCAAGTGGCATTAGAA	
SR-A NM_002445 and 2 other variants	Encodes scavenger receptor A (SR-A), alternatively known as the macrophage scavenger receptor, together with CD36 are mainly responsible for uptake of lipoprotein-derived cholesterol by macrophages (Yu et al. 2013).	For	GCAGTGGGATCACTTTCACAA	85
		Rev	AGCTGTCATTGAGCGAGCATC	
GPX1 NM_000581	Encodes the glutathione peroxidase enzyme (GPx) responsible for detoxifying H ₂ O ₂ and dependent on reduced glutathione. The GPx enzyme functions in detoxification of other lipid peroxides, making it an important antioxidant enzyme in humans (Kalyanaraman 2013).	For	TTTGGGCATCAGGAGAACGC	92
		Rev	AGCATGAAGTTGGGCTCGAA	
ABCA1 NM_005502	Encodes ATP-binding cassette transporter A1 (ABCA1), which plays a crucial role in macrophage cholesterol export along with ABCG1 and SR-BI (Yu et al. 2013).	For	ACCCACCCTATGAACAACATGA	123
		Rev	GAGTCGGGTAACGGAAACAGG	
RPLP0 NM_001002 NM_053275	This gene encodes a ribosomal protein which is a component of the 60S subunit and here used as a housekeeping gene for normalization	For	CATATCCGGGGGAATGTGGG	90
		Rev	AGCAGCTGGCACCTTATTGG	

Supplementary Figure



Supplementary Figure Effect of radiation and DNC treatment on viability of THP-1 macrophages in ox-LDL free culture. Macrophages (100 nM PMA induced THP-1 cells for 48h) were irradiated (0/2 Gy), treated with DNC (0/10 μ M) 1.5 h post-irradiation, and incubated for indicated times at 37° in CO₂ humidified atmosphere before viability was determined via MTT assay. Results are presented as mean \pm standard deviation of data obtained from at least three replicates. Notice that no significant change was observed between time intervals (contrary to ox-LDL containing culture, Figure 1c). *p* value < 0.05: significant, \pm : IR vs no IR, * : DNC vs no DNC, \div : vs previous time point.