

**Supplementary Materials:** The following are available online at [www.mdpi.com/xxx/s1](http://www.mdpi.com/xxx/s1)

**Table S1.** Primer sequences

Gene	Sequence
18s	F: 5'-GGACAGGATTGACAGATTGATAGC-3'
	R: 5'-TGCCAGAGTCTCGTTCGTTA-3'
TBP	F: 5'-GCCTTCCACCTTATGCTCAG-3'
	R: 5'-GTGTGCTGCTGCTGTTG-3'
Arg1	F: 5'-CCTATCACCGCAGAACCT-3'
	R: 5'-GCATCATACAACGAGCAGTG-3'
CD38	F: 5'-TTGCAAGGGTCTTGA AAC-3'
	R: 5'-CGCTGCCTCATCTACTCA-3'
CD80	F: 5'-GTCGTCGTCATCGTTGCAT-3'
	R: 5'-CCGAAGGTAAGGCTGTGTI-3'
CD206	F: 5'-CCTGTATGCCTGTGATTG-3'
	R: 5'-GCTTGATATTCTTCTTGTGCGT-3'
Col $\alpha$ (I)	F: 5'-CCTCAGGGTATTGCTGGACAAC-3'
	R: 5'-ACCACTTGATCCAGAAGGACCTT-3'
Col1 $\alpha$ 2	F: 5'-CCCAGAGTGGAACAGCGATT-3'
	R: 5'-ATGAGTCTTCGCTGGGGTG-3'
Col3 $\alpha$ 1	F: 5'-CTGGCCCTCCTGGTGCTTCT-3'
	R: 5'-CCTTGGCCCATCCTTCCTG-3'
Col4 $\alpha$ 1	F: 5'-CCTCTTCTCCCTCCCATTTGT-3'
	R: 5'-AGCGGGGTGTGTTAGTTACG-3'
Col5 $\alpha$ 1	F: 5'-AGATTACGAAGTTCCTCAGCGCA-3'
	R: 5'-ATCATCCAGATTCCGGGAGCCAAA-3'
Col6 $\alpha$ 3	F: 5'-GAGCATCCAGTTCAACCATCAA-3'
	R: 5'-CCTCCACAACCTCCATACCA-3'
Col8 $\alpha$ 1	F: 5'-TCTGCCACCTCAAATCCCTCCTCA-3'
	R: 5'-TCTCCGCGCAAACCTGGCTAACG-3'
CTGF	F: 5'-ACTGCCCTTCCCGAGAA-3'
	R: 5'-TCCTGGGCTCGTCACACA-3'
FASN	F: 5'-TGTATCCTGTGTCCAACCT-3'
	R: 5'-GGCTTGTCTGCTCTAACTG-3'
Fn1	F: 5'-AGAACCAGAGGAGGCACAAG-3'
	R: 5'-CCGTGTAAGGGTCAAAGCAT-3'
Gln3	F: 5'-GGATATCAAGTTGGAGT-3'

	R: 5'-GAGTTACAAGGTGAGATAA-3'
GltD8	F: 5'-ACATTGGTTATCTTGACTA-3'
	R: 5'-AGTTCTGCTGTATAATCC-3'
ICAM-1	F: 5'-CCGCTGTGCTTTGAGAACT-3'
	R: 5'-GGTCCTTGCCTACTTGCTG-3'
IL-1 $\beta$	F: 5'-GTCACAAGAAACCATGGCACAT-3'
	R: 5'-GCCCATCAGAGGCAAGGA-3'
IL-10	F: 5'-GGTTGCCAAGCCTTATCG-3'
	R: 5'-TCCACTGCCTTGCTCTTAT-3'
MCP-1	F: 5'-ACTTCTATGCCTCCTGCTCAT-3'
	R: 5'-CCTGCTTGATTCTCCTGTAG-3'
MMP2	F: 5'-GATACCCTCAAGAAGATGCAGAAGTT-3'
	R: 5'-ACATCTGGCTTCCGCATG-3'
MMP9	F: 5'-GAAGGCAAACCCTGTGTGTT-3'
	R: 5'-AGAGTACTGCTTGCCAGGA-3'
MMP13	F: 5'-ACTTAACTTACAGGATTGTGAATACTCCT-3'
	R: 5'-TGTGTCAGCAGTGCCATCATAGATT-3'
NF-kB p65	F: 5'-GAAGCACAGATACCACCAAGAC-3'
	R: 5'-TCAGCCTCATAGTAGCCATCC-3'
Pla2g	F: 5'-GCTCCTGAACCTGAACAAGATG-3'
	R: 5'-TGCCACCAAGTCCACAGT-3'
Ptgs2	F: 5'-GCATTCATTCCTCTACAT-3'
	R: 5'-CAACTCACATATTCATAC-3'
STAT1	F: 5'-GACTTCAGACACAGAAATCAACTC-3'
	R: 5'-TTGACAAAGACCACGCCTT-3'
TGF $\beta$ 1	F: 5'-GCCCCGAAGCGGACTACTATG-3'
	R: 5'-AGATGGCGTTGTTGCGGT-3'
TLR4	F: 5'-AGTAGCACTGACACCTTCCTT-3'
	R: 5'-GCCTTAGCCTCTTCTCCTTCA-3'
TIMP1	F: 5'-CATGGAAGCCTCTGTGGATATG-3'
	R: 5'-GATGTGCAAATTTCCGTTTCTT-3'

**Figure S1.** Effect of curcumin on glucose metabolism. Before each test, the animals were fasted for 5 hours. Blood glucose levels were measured at 15, 30, 60, 90, and 120 min after administration of glucose or insulin. A) GTT: blood glucose levels time course. Test was conducted on week 11 of feeding with diets. Mice were challenged with 2 g/kg body weight glucose. B) GTT: area under the curve. C) ITT: blood glucose levels time course. Test was conducted on week 13 of feeding with diets. Mice were challenged with 0.75 U/kg body weight human insulin. D) ITT: area under the curve. Quantification of metabolic responses during the tests was performed by comparing the area under the curve. Data represented as mean with standard error of the mean; n = 7-10.

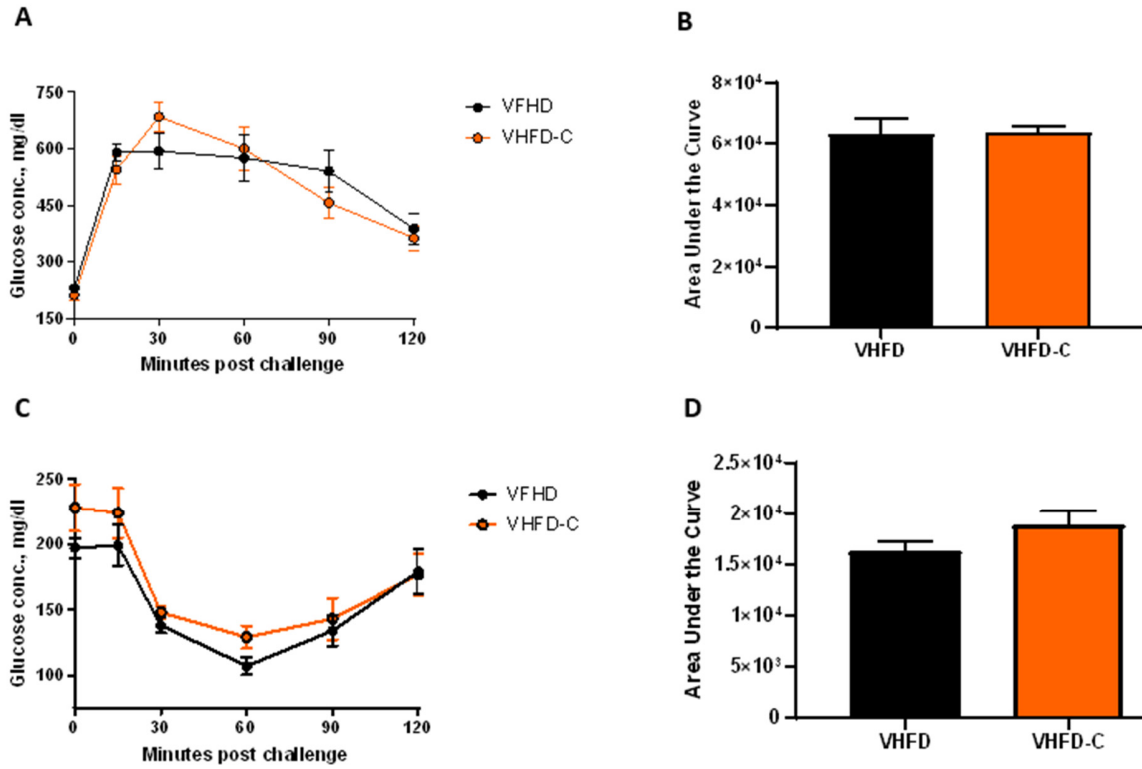


Figure S2. Curcumin effects on serum triglycerides (TG). Data of colorimetric assay. N = 10.

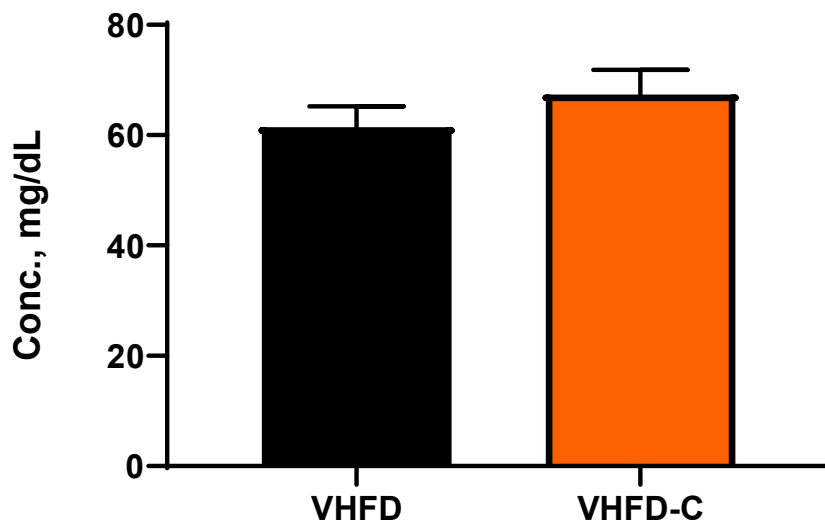
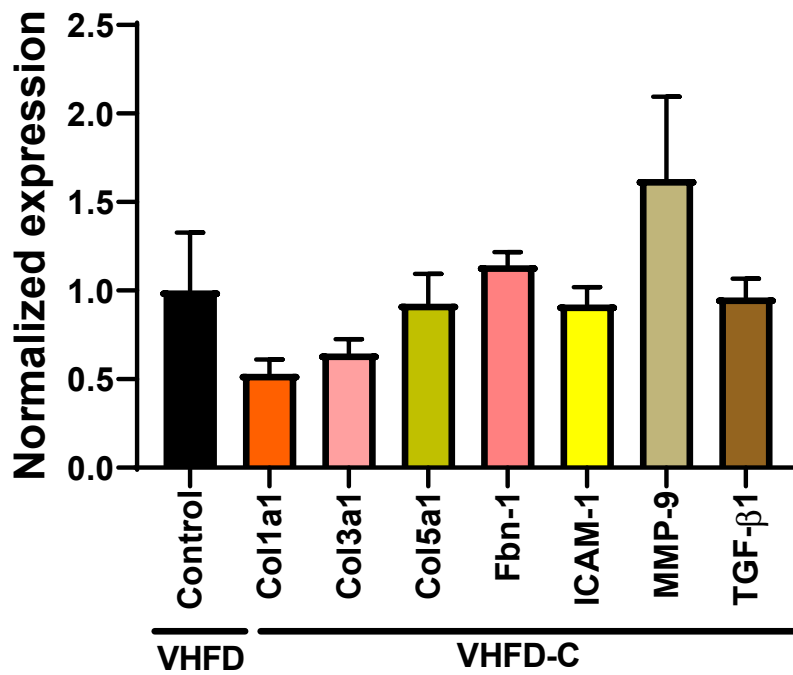


Figure S3. Effects of curcumin on gene expression in liver of curcumin-fed animals compared to control group. Target gene expression is normalized to TATA box binding protein gene. N = 5-6.



**Figure S4.** Effects of curcumin on gene expression in knee cartilage of curcumin-fed animals compared to control group. Target gene expression is normalized to TATA box binding protein gene. N = 6-7.

