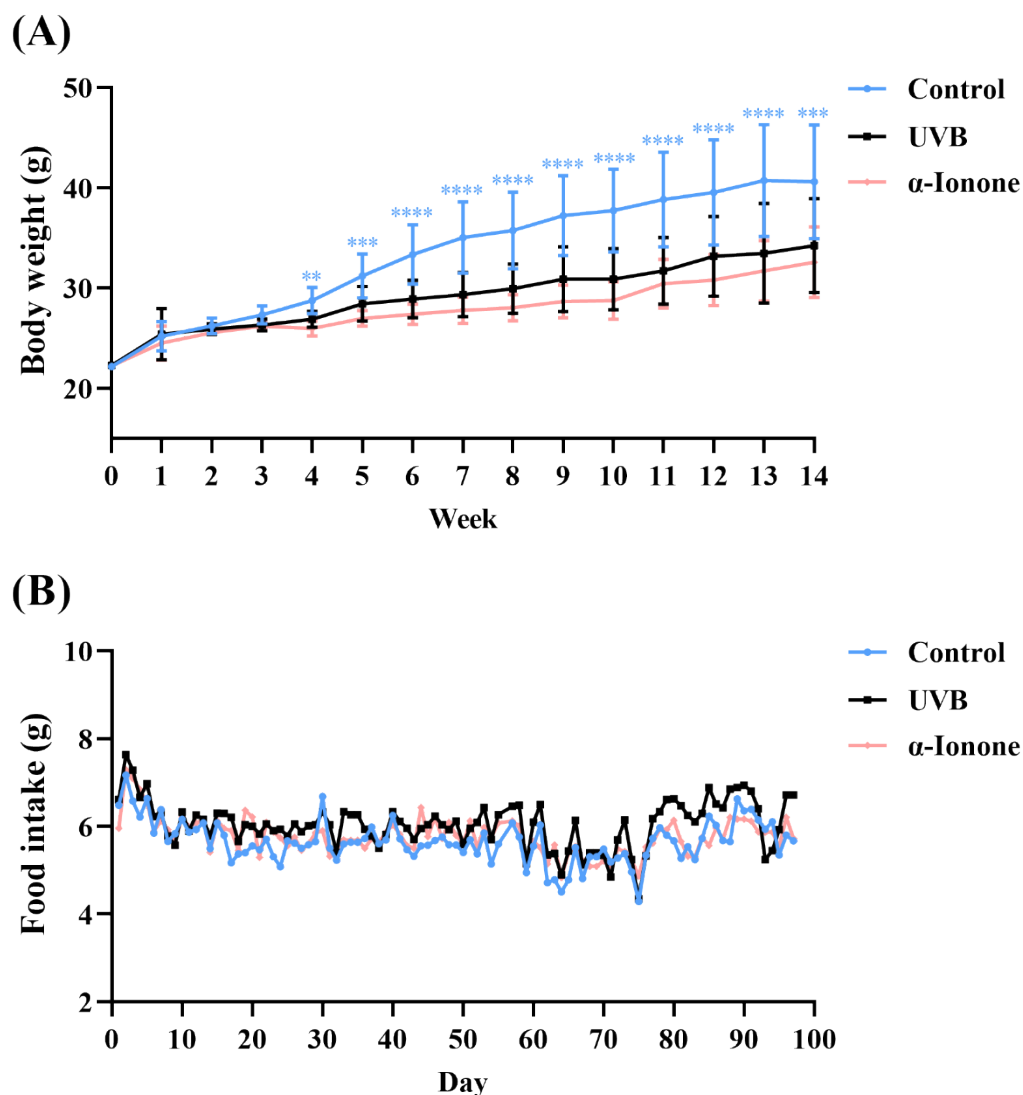


1 Supplementary material



2

3 **Figure S1. The effects of dietary supplementation with α -ionone on body weight**
4 **and food intake in chronic UVB-exposed mice. (A) Body weight. (B) Food intake.**

5 Data were presented as mean $\pm$ SEM ($n = 8$). Significant differences between groups
6 are indicated as: ** $p < 0.01$ versus UVB group; *** $p < 0.001$ versus UVB group;
7 **** $p < 0.0001$ versus UVB group.

8

9 **Table S1.** Composition of the experimental diets (g/kg) fed to mice.

Ingredients	AIN93G	α -Ionone group
Corn starch	397.486	395.486
Casein	200	200
Maltodextrin	132	132
Sucrose	100	100
Soybean oil	70	70
Cellulose	50	50
Mineral mix ¹	35	35
Vitamin mix ²	10	10
L-Cystine	3	3
Choline bitartrate	2.5	2.5
tert-Butylhydroquinone	0.014	0.014
α -Ionone	-	2

10 ¹ Mineral mix: AIN93G–Mineral mix.

11 ² Vitamin mix: AIN93G–Vitamin mix.

12

13 **Table S2.** Primer sequences used for RT-qPCR.

Type	Gene Description	Sequences (5'→3')
Mouse	<i>β-Actin</i>	F: GTCCCTCACCTCCCAAAAG R: GCTGCCTCAACACCTCAACCC
	Collagen type I alpha 1 chain (<i>COL1A1</i>)	F: GGCAACAGTCGCTTCACCTA R: AGTCCGAATTCCTGGTCTGG
	Collagen type I alpha 2 chain (<i>COL1A2</i>)	F: CCCAGAGTGGAACAGCGATT R: ATGAGTTCTTCGCTGGGGTG
	Collagen type III alpha 1 chain (<i>COL3A1</i>)	F: TAACCAAGGCTGCAAGATGG R: ACCAGTGCTTACGTGGGACA
	Matrix metalloproteinase-1 α (<i>MMP-1α</i>)	F: AGTACTACAACCTGACAACCCAAGA R: CCTGTTCTCTGTTTTCAGAGCC
	Matrix metalloproteinase-1 β (<i>MMP-1β</i>)	F: CCTTCCCCAAATCCCATCCA R: CACATCGATCAAAGGTTCTGGC
	Matrix metalloproteinase-3 (<i>MMP-3</i>)	F: ACTCCCTGGGACTCTACCAC R: GGTACCACGAGGACATCAGG
	Matrix metalloproteinase-9 (<i>MMP-9</i>)	F: GTGGACCATGAGGTGAACCA R: ACTGCACGGTTGAAGCAAAG
	Matrix metalloproteinase-13 (<i>MMP-13</i>)	F: CATCCATCCCGTGACCTTAT R: GCATGACTCTCACAATGCGA
	Interleukin-1 β (<i>IL-1β</i>)	F: GCAACTGTTCTGAACTCAACT R: ATCTTTTGGGGTCCGTCAACT
	Interleukin-6 (<i>IL-6</i>)	F: CTGCAAGAGACTTCCATCCAGTT R: GAAGTAGGGAAGGCCGTGG
	Tumor necrosis factor- α (<i>TNF-α</i>)	F: CAGGCGGTGCCTATGTCTC R: CGATCACCCCGAAGTTCAGTAG
	Interferon- γ (<i>IFN-γ</i>)	F: GCTCTGAGACAATGAACGCTACA R: TTTCTTCCACATCTATGCCACTT
	Monocyte chemoattractant protein-1 (<i>MCP-1</i>)	F: GGCTGTAGCCAAACTAGGCA R: GCCATGGGTTAGGCAGAGTT
	C-X-C motif chemokine 1 (<i>CXCL1</i>)	F: GCTGGGATTACCTCAAGAA R: TCTCCGTTACTTGGGGACAC
	C-X-C motif chemokine 2 (<i>CXCL2</i>)	F: AGTGAAGTGCCTGTCAATG R: TCCAGGTCAGTTAGCCTTGC
	C-X-C motif chemokine 12 (<i>CXCL12</i>)	F: GGAGGATAGATGTGCTCTGGAAC R: AGTGAGGATGGAGACCGTGGTG
	C-C motif ligand 5 (<i>CCL5</i>)	F: CCTGCTGCTTTGCCTACCTCTC R: ACACACTTGGCGGTTTCTTCGA
	C-C motif ligand 7 (<i>CCL7</i>)	F: CAGAAGGATCACCAGTAGTCGG R: ATAGCCTCCTCGACCCACTTCT
	Stem cell factor (<i>SCF</i>)	F: AGATTTTCAGCCTGGATGGTG R: TACTCCCCATGGCTTTCAAC
	P53 induced death domain protein 1 (<i>PIDD1</i>)	F: AACTACCTCACGACAGCGAC R: CCTCAGATTTGGACAGTTTCCAGC
	Tumor necrosis factor receptor superfamily member 10b (<i>TNFRSF10B</i>)	F: ATTTGGTACAGGGCCTCACG R: TCCGGTAAACGGAAACGACT
	Zinc finger matrin type 3 (<i>ZMAT3</i>)	F: GGCCTGAATTGCTCTGGACT R: GCTCCGACCGACTTTTGACA

Cyclin dependent kinase inhibitor 2A (<i>CDKN2A</i>)	F: TACGTGAACGTTGCCCCATCA R: CGAACTCGAGGAGAGCCATC
Ribonucleotide reductase M2 (<i>RRM2</i>)	F: TATGCCATCACTCGCTGCAA R: TGGCTGACAAGGAGAACACG
Phorbol-12-myristate-13-acetate-induced protein 1 (<i>PMAIP1</i>)	F: ACTTCCCTAGCTCCACGACT R: TGGAGTGCACCGGACATAAC
G two S phase expressed protein 1 (<i>GTSE1</i>)	F: GTTTAAACCGGTGCCGGAGA R: CAAACGTTTCCTTGCCCTGG
Cyclin E2 (<i>CCNE2</i>)	F: AAACGGCTACTGCGTCTTGA R: GGCCCGGCCTATATATTGAGT

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