

**Supplementary Table 1:** List of antibodies used in this study

<b>Antibody</b>	<b>Ref</b>	<b>Provider</b>	<b>Application and Dilution</b>
4-HNE	MA527570	ThermoFisher Scientific	IF (1:100)
8-OHdG	sc-66036	Santa Cruz Biotechnology	IF (1:100)
$\beta$ III-tubulin	sc-80005	Santa Cruz Biotechnology	IF (1:200)
ACOX1	Ab184032	Abcam	WB (1:1000)
Akt1/2/3	sc-8312	Santa Cruz Biotechnology	WB (1:1000)
AMPK	sc-25792	Santa Cruz Biotechnology	WB (1:1000)
Beclin 1	sc-11427	Santa Cruz Biotechnology	WB (1:1000)
BRD2	sc-393720	Santa Cruz Biotechnology	IF (1:50)
BRD3	sc-81202	Santa Cruz Biotechnology	IF (1:50)
BRD4	NBP1-18874	Novus Biological	IF (1:500)
Catalase	sc-271803	Santa Cruz Biotechnology	WB (1:500)
GAPDH	sc-32233	Santa Cruz Biotechnology	WB (1:5000)
GPX1	Ab22604	Abcam	WB (1:1000)
GSH	Ab19534	Abcam	IF (1:150)
LC3	L7543	Merck Life Science	IF (1:400); WB (1:2000)
NOX2	sc-130543	Santa Cruz Biotechnology	WB (1:1000)
NOX4	sc-518092	Santa Cruz Biotechnology	IF (1:50)
Nrf2	sc-365949	Santa Cruz Biotechnology	IF (1:100)
p22phox	sc-130551	Santa Cruz Biotechnology	IF (1:50)
p47phox	sc-17844	Santa Cruz Biotechnology	IF (1:50)
p-Akt	sc-7985	Santa Cruz Biotechnology	WB (1:500)
p-AMPK	sc-33524	Santa Cruz Biotechnology	WB (1:300)
PGC1 $\alpha$	sc-13067	Santa Cruz Biotechnology	IF (1:50)
PPAR $\alpha$	Ab8934	Abcam	IF (1:300)
PPAR $\beta/\delta$	Ab32673	Abcam	IF (1:100)
PPAR $\gamma$	Ab59256	Abcam	IF (1:100)
Sir2	#07-131	Upstate Cell Signaling Solutions	WB (1:500)
SOD1	sc-271014	Santa Cruz Biotechnology	WB (1:300)
SOD2	sc-137254	Santa Cruz Biotechnology	WB (1:300)

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Tyrosine hydroxylase	701949	ThermoFisher Scientific	IF (1:100)
Vinculin	sc-73614	Santa Cruz Biotechnology	WB (1:500)
$\alpha$ -synuclein	sc-12767	Santa Cruz Biotechnology	IF (1:50)
Goat Anti-Mouse IgG (H + L)-HRP Conjugate	#1706516	Biorad Laboratories	WB (1:10000)
Goat Anti-Rabbit IgG (H + L)-HRP Conjugate	#1706515	Biorad Laboratories	WB (1:10000)
Goat anti-Rabbit IgG (Heavy chain), Superclonal™ Recombinant Secondary Antibody, Alexa Fluor™ 488	A27034	Thermo Fisher Scientific	IF (1:300)
Goat anti-Mouse IgG (H+L), Superclonal™ Recombinant Secondary Antibody, Alexa Fluor™ 555	A28180	Thermo Fisher Scientific	IF (1:300)

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