

**Table S3.** The full name and abbreviations of aging-related indicators.

Abbreviations	Full name	Abbreviations	Full name
ABTS	2,2'-azi-nobis-3-ethylbenzthiazoline-6-sulphonate	Keap1	Kelch-like ECH-associated protein 1
ACC	Acetyl-CoA carboxylase	Ki-67	Antigen Ki-67
AChE	Acetylcholinesterase	LG	Liver glycogen
AGEs	Advanced glycation end products	IκB	Inhibitor of NF-κB
AKT	PKB, Protein kinase B	LOX	Lipoxygenase
AMPK	AMP-activated protein kinase	MAPK p38	Mitogen-activated protein kinase p38
BACE 1	Beta-site APP-cleaving enzyme 1	MDA	Malondialdehyde
Bax	Bcl2-Associated X	MMP-2	Matrix metalloproteinase-2
Bcl-2	B-cell lymphoma-2	MMP-3	Matrix metalloproteinase-3
BDNF	Brain-derived neurotrophic factor	MMP-9	Matrix metalloproteinase-9
BS	Blood sugar	MSA	Mitochondrial superoxide anion
CaMKII	Calmodulin-dependent protein kinase II	MyD88	Myeloid differentiation factor 88
CAT	Catalase	NF-κB p65	Nuclear factor kappa-B p65
CD11b	Integrin αM	NGF	Nerve growth factor
ChAT	Acetylcholine transferase	NMDA	N-methyl-D-aspartic acid receptor
Cort	Corticosterone	NQO1	NADPH quinone dehydrogenase 1
CP	Collagen peptides	Nrf2	Nuclear factor-erythroid 2-related factor 2
CREB	cAMP-response element-binding protein	PARP	Poly ADP-ribose polymerase
DSL	Degree of skin laxity	PCO	Pest Console Operation
EP	Elastin peptides	PI3K	Phosphoinositide 3-kinase
ERK 1/2	Extracellular signal-related kinases 1/2	PPARα	Peroxisome proliferators-activated receptor α
ET	Epidermal Thickness	PPARγ	Peroxisome proliferators-activated receptor γ
FADD	Fas-associating protein with a novel death domain	PS-1	Presenilin-1
Fas	Factor associated suicide	PSD95	Postsynaptic density protein 95
FFA	Free fatty acids	RAGE	Receptor for advanced glycation end products
GDF-11	Growth differentiation factor-11	ROS	Reactive oxygen species
GRP78	Glucose-regulated protein 78	SA-β-GAL	Senescence Associated β -Galactosidase
GSH-Px	Glutathione peroxidase	SH	Skin hydration
HA	Hydrated acid	Smad2	Small mothers against decapentaplegic 2
HDL	High-density lipoprotein	SOD	Superoxide dismutase
HGCP	Hippocampal glial cell proliferation	SP-1	Transcription factor SP-1
HO-1	Heme oxygenase-1	ST	Skin thickness
HSF-1	Heat-shock transcription factor-1	TAOC	Total antioxidant capacity
HSP-70	Heat shock protein-70	TGF-β	Transforming growth factor-β
HSP-90	Heat shock protein-90	TLR4	Toll-like receptors 4
Hyp	Hydroxyproline	TNF-α	Tumor necrosis factor-α
IBA1	Ionized calcium-binding adapter molecule 1	Trig	Triglycerides
IGF-1	Insulin-like growth factor 1	TrkB	Tyrosine kinase receptor B
IKK	IκB kinase	TSWL	Transepidermal water loss
IL-1α	Interleukin-1α	TβRII	TGF-β receptor II
IL-1β	Interleukin-1β	VGEF	Vascular endothelial growth factor
IL-6	Interleukin-6	VGF	Nerve growth factor inducible
JNK	c-Jun N-terminal kinase	8-ODdG	8-hydroxy-2'-deoxyguanosine
MMP-1	Matrix metalloproteinase-1		