A promising strategy of investigating anti-aging effect of natural compounds: A case study of caffeoylquinic acids

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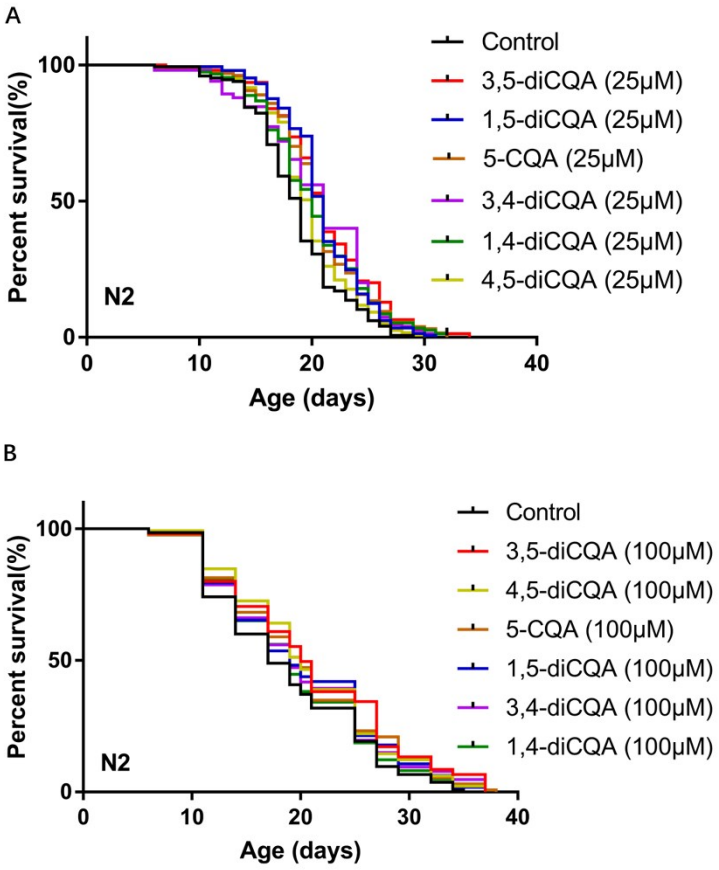

Supplementary Fig. S1 Survival curves of wild type worms treated with 0.1% DMSO (Control) or caffeoylquinic acid isomers at concentrations of (A) 25 μM and (B) 100 μM at 20℃.

Supplementary Table S1. Effect of Caffeoylquinic acids on the lifespan of *C. elegans* at 20℃.

Strains	Treatment (μM)	Mean lifespan (d) (±SEM)	Worm number	Change (%)	*p* value
N2	Control	18.61 ± 0.34	147	□	-
	3,5-diCQA (25)	21.08 ± 0.36	155	13.27	< 0.0001(****)
	1,5-diCQA (25)	20.87 ± 0.32	145	12.14	< 0.0001(****)
	5-CQA (25)	20.53 ± 0.37	127	10.32	0.0001(***)
	3,4-diCQA (25)	20.30 ± 0.42	147	9.08	< 0.0001(****)
	1,4-diCQA (25)	20.07 ± 0.39	149	7.84	0.0020(**)
	4,5-diCQA (25)	19.65 ± 0.36	119	5.59	0.0674(ns)
N2	Control	18.84 ± 0.61	135		
	3,5-diCQA (100)	21.01 ± 0.78	105	11.52	0.0059(**)
	4,5-diCQA (100)	20.79 ± 0.62	137	10.35	0.0433(*)
	5-CQA (100)	20.42 ± 0.68	129	8.39	0.0459(*)
	1,5-diCQA (100)	20.21 ± 0.72	112	7.27	0.1037(ns)
	3,4-diCQA (100)	20.13 ± 0.68	127	6.85	0.0918(ns)
	1,4-diCQA (100)	19.59 ± 0.65	123	3.98	0.3727(ns)

Supplementary Table S2. Primers used in this research.

Gene	Primers
act-1	F: CATGAAGATCAAGATCATCGCC R: GTGACGATGGTTTTGAACTTGT
daf-2	F: GTTCGCTGACAATCTCATTTGT R: CAGTAATTTCACGTAGATGCGG
age-1	F: CGAGATCGTCAACCGTTTATTC R: TTCCACATTACTTCGTAGGCTT
daf-16	F: GGAGCATTTGATAACGTTCCAT R: GTAGTTGCATCGATACGCATTT
sod-3	F: GATTTGGAACCTGTAATCAGCC R: GTGAAGTTTCTCCTCGATCTGA
ctl-1	F: GACGTATCCAAAACCCCAAGTG R: TTGGCATGAACGACACGCTC
hsp-16.2	F: GTACGCTATCAATCCAAGGAGA R: GGAATTGATCTTCCTTGAACCG