

Longevity Candidate Genes: SNPs of Interest

Gene	Chr	Trait Associated with the Gene	References	SNP	position	coded_allele	non_coded_allele	exp_freq_coded_allele	info	certainty
Interleukin 6 (IL6) (IL6 -174 polymorphism)	7	longevity	14,18	rs1800795	22766645	C	G	0.349	0.995	0.997
tumor necrosis factor alpha (TNFA) (TNFA -308 polymorphism)	6	longevity	18	rs1800629	31543031	G	A	0.854	1	1
apolipoprotein C-III (APOC3) (APOC3 -614 polymorphism)	11	longevity		rs2542052	116699984	A	C	0.416	1	1

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Gene	Gene Name	Chr	Start	End	Trait Studied for Association with the Gene	References	Number of SNPs Imputed from 1000 Genomes	Number SNPs Imputed from 1000 Genomes with INFO>0.8
ADAPT78 (DSCR1; RCAN1)	regulator of calcineurin 1	21	35880440	35992441	longevity		1099	969
ADIPOQ	adiponectin, C1Q and collagen domain containing	3	186555463	186581252	longevity	18	191	140
AKT1	v-akt murine thymoma viral oncogene homolog 1	14	105230686	105267088	longevity	6	306	226
APOC1	apolipoprotein C-I	19	45412504	45427606	longevity	1,7	104	61
APOC3	apolipoprotein C-III	11	116695422	116708788	longevity		138	114
APOE	apolipoprotein E	19	45404011	45417650	longevity	1,7, 14	85	62
CAT	catalase	11	34455472	34498609	longevity		253	216
CAMKIV (CAMK4)	calcium/calmodulin-dependent protein kinase IV	5	110554351	110835584	longevity	3,7	2170	1716
CDKN2A (p16ink4a)	cyclin-dependent kinase inhibitor 2A	9	21962751	22000300	longevity	6,8, 16	216	145
CDKN2B	cyclin-dependent kinase inhibitor 2B	9	21997902	22014362	longevity		85	65
CETP	cholesteryl ester	16	56990762	57022757	Longevity	6,14	343	260

	transfer protein							
FADS1	fatty acid desaturase 1	11	61562099	61601790	longevity		145	110
FOXO1a (FOXO1)	forkhead box O1	13	41124804	41245734	longevity		756	593
FOXO3a (FOXO3)	forkhead box O3	6	108876038	109010977	longevity	6,7	753	545
FRAP1 (mTOR)	mechanistic target of rapamycin	1	11161592	11327564	longevity	15, 17	1085	863
GATA2	GATA binding protein 2	3	128193270	128217028	longevity		181	125
GATA3 (HRDS)	GATA binding protein 3	10	8090567	8122161	longevity	11	277	220
GATA4	GATA binding protein 4	8	11529468	11622511	longevity		900	731
GATA5	GATA binding protein 5	20	61033553	61056026	longevity		209	134
GATA6	GATA binding protein 6	18	19744404	19787491	longevity		214	150
GPX1	glutathione peroxidase 1	3	49389609	49401033	longevity	12,13	56	35
GPX4 (PHGPX)	glutathione peroxidase 4	19	1098936	1111787	longevity	13	126	96
IL6	interleukin 6	7	22760503	22776621	longevity	14,18	137	102
IL6R	Interleukin 6 receptor	1	154372669	154446926	longevity		526	348
IL13	interleukin 13	5	131986955	132001802	longevity	20	117	90
KL (KLOTHO)	klotho	13	33585207	33645282	longevity		551	431

LMNA	lamin A/C	1	156047364	156114880	longevity	6	389	294
MAT1A	methionine adenosyltransferase I, alpha	10	82026576	82054440	longevity	17	208	179
MAT2A	methionine adenosyltransferase II, alpha	2	85761288	85777403	longevity	17	114	88
MINPPI (MINPP1)	multiple inositol-polyphosphate phosphatase 1	10	89259632	89318217	longevity	4,6	367	287
MMP20	matrix metalloproteinase 20	11	102442566	102501063	longevity		579	507
OTOL1 (OTOL1)	otolin 1	3	161209596	161226730	longevity	10	144	132
PARP1	poly (ADP-ribose) polymerase 1	1	226543392	226600780	longevity		414	335
PIK3CB	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit beta	3	138367860	138558780	longevity	2	1037	775
PON1	paraoxonase 1	7	94921988	95030673	longevity	6	840	724
SOD1	superoxide dismutase 1	21	33026935	33046244	longevity	13	114	89
SOD2	superoxide dismutase 2	6	160095096	160188561	longevity	6, 13	647	511
SOD3	superoxide dismutase 3	4	24786534	24807464	longevity	13	170	108
SYNJ1	synaptojanin 1	21	33996069	34105359	longevity	17	415	296
SYNJ2	synaptojanin 2	6	158397888	158525208	longevity	17	1081	855
TNFA (TNF)	tumor necrosis factor alpha	6	31538344	31551113	longevity	18	70	65

TOMM40	Translocase of outer mitochondrial membrane 40	19	45388826	45411946	longevity	5	167	118
TERC (hTERC)	telomerase RNA component	3	169477398	169487835	longevity	19	57	45
TERT (hTERT)	telomerase reverse transcriptase	5	1248262	1300184	longevity	16,19	421	223

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