

Table S1 Gene accession numbers in GenBank

Gene name	Specie name	GenBank GIEST	Nucleotide length	Protein length
PPAR α	Homosapiens	Y07619.1	1407	468
	Macaca mulatta	NM_001033029.1	1404	467
	Gorilla gorilla gorilla	XM_004063652.1	9881	468
	Xenopus laevis	NM_001089813.1	3355	474
	Danio rerio	DQ839548.1	1380	459
	Salmo salar	NM_001123560.1	1644	464
	Odobenus rosmarus divergens	XM_004415835.1	2002	468
	Orcinus orca	XM_004279591.1	1932	469
	Tursiops truncatus	XM_004322234.1	1802	469
	Gallus	NM_001001464.1	2100	468
	Anser anser	AF481797.1	1455	468
	Anas platyrhynchos	EF534215.1	1430	468
	Felis catus	XM_003989394.1	1420	468
	Canis lupus familiaris	NM_001003093.1	2032	468
	Oryctolagus cuniculus	XM_002723354.1	1407	468
	Mustela putorius furo	XM_004813909.1	8279	468
	Equus caballus	NM_001242553.1	1763	468
	Ovis aries	XM_004007050.1	1445	470
	Bos taurus	NM_001034036.1	1979	470
	Bubalus bubalis	JQ070333.1	1548	470
	Sus scrofa	NM_001044526.1	1488	468
	Ceratotherium simum simum	XM_004437986.1	1803	467
	Loxodonta africana	XM_003420893.1	1407	468
	Mus musculus	BC016892.1	2336	468
Rattus norvegicus	NM_013196.1	2022	468	
Cavia porcellus	NM_001173004.1	2073	467	
Octodon degus	XM_004642403.1	1404	467	
PPAR β	Homosapiens	AY919140.1	1326	441
	Gorilla gorilla gorilla	XM_004043869.1	3454	343
	Pan troglodytes	XM_003311239.1	3425	402
	Xenopus laevis	NM_001087841.1	1537	396
	Danio rerio	NM_131468.2	3219	517
	Gallus	NM_204728.1	1756	443
	Anas platyrhynchos	XM_005023480.1	2268	345
	Canis lupus familiaris	NM_001048102.1	1864	459
	Oryctolagus cuniculus	NM_001082000.1	1326	441
	Dasyus novemcinctus	XM_004458309.1	2521	442
	Equus caballus	XM_001498870.3	1375	402
	Bos taurus	NM_001083636.1	3300	441
	Sus scrofa	GU565977.1	2717	441

	Mus musculus	U10375.1	1323	440
	Rattus norvegicus	U75918.1	1975	440
	Cavia porcellus	XM_003473900.2	3245	440
PPAR γ	Homo sapiens	X90563.1	1766	477
	Macaca mulatta	NM_001032860.1	1759	505
	Nomascus leucogenys	XM_004091756.1	1663	483
	Pan troglodytes	XM_003950030.1	1663	483
	Xenopus laevis	NM_001087843.1	2046	477
	Danio rerio	NM_131467.1	1994	527
	Salmo salar	NM_001123546.1	2528	544
	Gallus	NM_001001460.1	2089	475
	Anas platyrhynchos	EF546801.2	1650	475
	Ficedula albicollis	XM_005052821.1	4207	475
	Felis catus	NM_001113176.1	1841	529
	Canis lupus familiaris	NM_001024632.2	1830	529
	Ovis aries	NM_001100921.1	1428	475
	Bos taurus	BC116098.1	1801	475
	Bubalus bubalis	HQ270143.1	1624	505
	Sus scrofa	NM_214379.1	1758	504
	Mus musculus	U10374.1	1428	475
	Rattus norvegicus	Y12882.2	1570	505
	Cavia porcellus	XM_003462736.2	1431	475
	Octodon degus	XM_004645604.1	1449	475

Table S2 All of the predicted TFBS in human and in chicken

PPAR α		PPAR β		PPAR γ	
Homo sapiens	Gallus gallus	Homo sapiens	Gallus gallus	Homo sapiens	Gallus gallus
Sp1	Oct-1	NF-1	p40x	p40x	Oct-1
Oct-1	C/EBP α	C/EBP α	GR	Oct-1	ICSBP
GATA-1	TBP	Sp1	C/EBP α	Zen-1	GATA-1
CREB	AP-2 α	AP-2 α	ICSBP	TBP	Erg-1
CPE_bind	NF-1	GR	ISGF-3	MEB-1	C/EBP α
CP1	GR	Hb	REV-ErbA	Hb	c-Jun
NF-1	HSTF	p40x	Sp1	AP-2 α	c-Fos
AP-2 α	Pit-1a	AP-1	AP-2 α	Sp1	Pap1+
GR	Sp1	GATA-1	USF	C/EBP α	AP-1
Egr-1	Hb	TBP	c-Fos	YY1	NF-1
WT1	GATA-1	Pit-1a	NF-1	HNF-3B	GR
CACCC-bi	SGF-1	HSE-bind	ACE2	REB1	HNF-3B
MyoD	HSE-bind	HSF	NF-E2	ER	SRF
C/EBP α	Pit-1	MBP-1_(1)	c-Jun	NF-1	Dl
GLI3	NF-A	NF-kappa	AP-1	Id3	TBP
ENKTF-1	Elk-1	NF-kappaB	ITF-2	HNF-1	MAT α 2
E1	GCN4	Kr	MRF4	NF-ATc3	Hb
ICSBP	Antp	ARP-1	Id2	USF	Dfd
Krox-20	SRY	ATF	NF-kappaB	CP1	MEB-1
ETF	CoS	Oct-1	GATA-1	GATA-1	GLO
MIG1	MEB-1	USF	COUP	LyF-1	ATF
RAR- α	GLO	CeMyoD	RAR- α	T3R	Oct-21
REV-ErbA α	CREB	YY1	RXR- α	ICSBP	Eve
CoS	PU.1	N-Myc	ER	RAP1	Ftz
NF-kappa	SRF	CP1	c-Ets-1	C/EBP δ	HNF-1C
Adf-1	ICSBP	CTF	SRF	TSF3	ER
CTF	HNF-3	ETF	PR	c-Ets-1_	PR
RAP1	NRL	MIG1	Ftz	GR	CREB
NF-muE1	NF-kappaB	c-Jun	Oct-1	PR	Pit-1
Elk-1	C/EBP β	CRE-BP1	IRF-1	T3R- α	USF
SRF	SGF-3	CREB	REB1	IRF-1	E2
	NF-ATc3	CPE_bind	YY1	E1	Pit-1a
	RSRFC4	Adf-1	AP-2	REV-ErbA	AP-2 α
	CTF	WT1	Egr-1	COUP	c-Rel
	Odd	NF-muE1	CPE_bind	c-Jun	TCF-1 α
	CeMyoD	Krox-20	ETF	NF-kappaB	Antp
	PEA3		ATF	CPE_bind	ISGF-3
	Ftz		EF1	Dfd	HNF-3
	C/EBP		CP1	Ftz	NF-EM5

	CPC1		CREB	HNF-1C	
	AP-1		WT1		
	p40x		CRE-BP1		
	HNF-1C		Adf-1		
	CPE_bind		AhR		
	Zen-1				

Table S3 The predicted miRNAs targets in PPAR gene family in human

miRNA	Gene name
hsa-miR-128	PPAR α , PPAR γ
hsa-miR-27abc	PPAR α , PPAR γ
hsa-miR-454	PPAR γ
hsa-miR-142-3p	PPAR α
hsa-miR-9	PPAR α , PPAR β
hsa-miR-17	PPAR α , PPAR β
hsa-miR-152	PPAR β
hsa-miR-138	PPAR β
hsa-miR-29abcd	PPAR β
hsa-miR-873	PPAR α
hsa-miR-21	PPAR α
hsa-miR-22	PPAR α
hsa-miR-539	PPAR α
hsa-miR-202-3p	PPAR α
hsa-let-7	PPAR α
hsa-miR-93	PPAR α
hsa-miR-144	PPAR α
hsa-miR-19ab	PPAR α
hsa-miR-508	PPAR α
hsa-miR-141	PPAR α
hsa-miR-335	PPAR α
hsa-miR-24	PPAR α
hsa-miR-33ab	PPAR α
hsa-miR-125a-5p	PPAR α
hsa-miR-124	PPAR α
hsa-miR-181abcd	PPAR α
hsa-miR-101	PPAR α
hsa-miR-10abc	PPAR α