

Table EV1. List of 51 TFs selected from multiple datasets

Gene symbol	Gene name	ID
DBP	D-box binding PAR bZIP transcription factor	ENSG00000105516
ELF1	E74-like ETS transcription factor 1	ENSG00000120690
ELF3	E74-like ETS transcription factor 3	ENSG00000163435
ELK3	ELK3, ETS transcription factor	ENSG00000111145
ERG	ERG, ETS transcription factor	ENSG00000157554
ETS1	ETS proto-oncogene 1, transcription factor	ENSG00000134954
FOSL2	FOS like 2, AP-1 transcription factor subunit	ENSG00000075426
GABPA	GA binding protein transcription factor alpha subunit	ENSG00000154727
HBP1	HMG-box transcription factor 1	ENSG00000105856
JUN	Jun proto-oncogene, AP-1 transcription factor subunit	ENSG00000177606
JUNB	JunB proto-oncogene, AP-1 transcription factor subunit	ENSG00000171223
MAFF	MAF bZIP transcription factor F	ENSG00000185022
MAFK	MAF bZIP transcription factor K	ENSG00000198517
ATF2	activating transcription factor 2	ENSG00000115966
ATF3	activating transcription factor 3	ENSG00000162772
CARF	calcium responsive transcription factor	ENSG00000138380
GTF2H5	general transcription factor IIH subunit 5	ENSG00000272047
GRHL3	grainyhead-like transcription factor 3	ENSG00000158055
HSF4	heat shock transcription factor 4	ENSG00000102878
HES1	hes family bHLH transcription factor 1	ENSG00000114315
HEY1	Hes-related family bHLH transcription factor with YRPW motif 1	ENSG00000164683
MESP2	mesoderm posterior bHLH transcription factor 2	ENSG00000188095
OLIG1	oligodendrocyte transcription factor 1	ENSG00000184221
PTF1A	pancreas specific transcription factor, 1a	ENSG00000168267
RUNX2	runt related transcription factor 2	ENSG00000124813
SIM2	single-minded family bHLH transcription factor 2	ENSG00000159263
TCF19	transcription factor 19	ENSG00000137310
TCF7L1	transcription factor 7-like 1	ENSG00000152284
TFAP2C	transcription factor AP-2 gamma	ENSG00000087510
AEBP2	AE binding protein 2	ENSG00000139154
BCL6	B-cell CLL/lymphoma 6	ENSG00000113916
BARX1	BARX homeobox 1	ENSG00000131668

BBX	BBX, HMG-box containing	ENSG00000114439
CNOT8	CCR4-NOT transcription complex subunit 8	ENSG00000155508
CITED2	Cbp/p300 interacting transactivator with Glu/Asp rich carboxy-terminal domain 2	ENSG00000164442
GATA4	GATA binding protein 4	ENSG00000136574
GLI2	GLI family zinc finger 2	ENSG00000074047
MXD1	MAX dimerization protein 1	ENSG00000059728
MXI1	MAX interactor 1, dimerization protein	ENSG00000119950
MNT	MAX network transcriptional repressor	ENSG00000070444
MIER1	MIER1 transcriptional regulator	ENSG00000198160
MLXIP	MLX interacting protein	ENSG00000175727
MYBL1	MYB proto-oncogene-like 1	ENSG00000185697
RELA	RELA proto-oncogene, NF-kB subunit	ENSG00000173039
SMAD2	SMAD family member 2	ENSG00000175387
CREB3L1	cAMP responsive element binding protein 3-like 1	ENSG00000157613
CREB3L2	cAMP responsive element binding protein 3-like 2	ENSG00000182158
CREB3L4	cAMP responsive element binding protein 3-like 4	ENSG00000143578
CREB5	cAMP responsive element binding protein 5	ENSG00000146592
CREBL2	cAMP responsive element binding protein-like 2	ENSG00000111269
CAMTA1	calmodulin binding transcription activator 1	ENSG00000171735
