

Supplementary Table 4: Table displays the pearson's correlation between the geometric mean of expression values of transcription factor genes in subtypes and fold overrepresentation of corresponding TFBS families

Gene Symbol	GeneName	TFBS families	Pearson's correlation
SNFT	Jun dimerization protein p21SNFT	V\$AP1F	0.37
FOS	v-fos FBJ murine osteosarcoma viral oncogene homolog	V\$AP1F	0.65
FOSB	FBJ murine osteosarcoma viral oncogene homolog B	V\$AP1F	0.83
FOSL2	FOS-like antigen 2	V\$AP1F	0.85
FOSL1	FOS-like antigen 1	V\$AP1F	0.43
JDP2	jun dimerization protein 2	V\$AP1F	0.48
JUN	jun oncogene	V\$AP1F	0.74
JUNB	jun B proto-oncogene	V\$AP1F	0.72
JUNB	jun B proto-oncogene	V\$AP1F	0.66
ARID5B	AT rich interactive domain 5B (MRF1-like)	V\$ARID	-0.16
ARID5B	AT rich interactive domain 5B (MRF1-like)	V\$ARID	-0.07
ARID5B	AT rich interactive domain 5B (MRF1-like)	V\$ARID	0.27
CUTL1	cut-like 1, CCAAT displacement protein (Drosophila)	V\$CLOX	0.14
CUTL2	cut-like 2 (Drosophila)	V\$CLOX	-0.74
E2F1	E2F transcription factor 1	V\$E2FF	0.34
E2F2	E2F transcription factor 2	V\$E2FF	0.15
E2F3	E2F transcription factor 3	V\$E2FF	-0.21
E2F4	E2F transcription factor 4, p107/p130-binding	V\$E2FF	-0.53
E2F4	E2F transcription factor 4, p107/p130-binding	V\$E2FF	-0.68
E2F5	E2F transcription factor 5, p130-binding	V\$E2FF	0.81
E2F7	E2F transcription factor 7	V\$E2FF	0.37
E2F8	E2F transcription factor 8	V\$E2FF	0.18
TFDP1	transcription factor Dp-1	V\$E2FF	-0.01
TFDP1	transcription factor Dp-1	V\$E2FF	-0.05
ATF6	activating transcription factor 6	V\$EBOX	0.88
CREBL1	cAMP responsive element binding protein-like 1	V\$EBOX	0.49
MAX	MYC associated factor X	V\$EBOX	0.85
MGA	MAX gene associated	V\$EBOX	-0.58
MLX	MAX-like protein X	V\$EBOX	0.26
MLXIPL	MLX interacting protein-like	V\$EBOX	0.78
MLXIPL	MLX interacting protein-like	V\$EBOX	-0.83
MLXIPL	MLX interacting protein-like	V\$EBOX	0.76
MYC	v-myc myelocytomatosis viral oncogene homolog (avian)	V\$EBOX	-0.38
MYCN	v-myc myelocytomatosis viral related oncogene, neuroblastoma derived (avian)	V\$EBOX	-0.35
TCF4	transcription factor 4	V\$EBOX	-0.36
EGR1	early growth response 1	V\$EGRF	-0.76
EGR2	early growth response 2 (Krox-20 homolog, Drosophila)	V\$EGRF	-0.78
EGR3	early growth response 3	V\$EGRF	-0.51
ZBTB7A	zinc finger and BTB domain containing 7A	V\$EGRF	0.29
ZBTB7B	zinc finger and BTB domain containing 7B	V\$EGRF	-0.02
KLF2	Kruppel-like factor 2 (lung)	V\$EKLF	-0.01
KLF2	Kruppel-like factor 2 (lung)	V\$EKLF	-0.21
KLF3	Kruppel-like factor 3 (basic)	V\$EKLF	-0.16
KLF4	Kruppel-like factor 4 (gut)	V\$EKLF	-0.13
KLF6	Kruppel-like factor 6	V\$EKLF	-0.34
KLF6	Kruppel-like factor 6	V\$EKLF	-0.75
KLF6	Kruppel-like factor 6	V\$EKLF	-0.21
KLF7	Kruppel-like factor 7 (ubiquitous)	V\$EKLF	0.86
KLF8	Kruppel-like factor 8	V\$EKLF	0.09
KLF8	Kruppel-like factor 8	V\$EKLF	-0.21
TRPS1	trichorhinophalangeal syndrome I	V\$GATA	0.37
GATA2	GATA binding protein 2	V\$GATA	-0.04
GATA3	GATA binding protein 3	V\$GATA	0.35
GATA6	GATA binding protein 6	V\$GATA	-0.67
GATAD2A	GATA zinc finger domain containing 2A	V\$GATA	-0.31
GATAD1	GATA zinc finger domain containing 1	V\$GATA	0.61
GATAD1	GATA zinc finger domain containing 1	V\$GATA	0.50
GLI1	glioma-associated oncogene homolog 1 (zinc finger protein)	V\$GLIF	-0.87
GLI2	GLI-Kruppel family member GLI2	V\$GLIF	-0.84
GLI2	GLI-Kruppel family member GLI2	V\$GLIF	-0.79
GLI3	GLI-Kruppel family member GLI3 (Greig cephalopolysyndactyly syndrome)	V\$GLIF	-0.10
GLIS1	GLIS family zinc finger 1	V\$GLIF	-0.69
GLIS2	GLIS family zinc finger 2	V\$GLIF	0.17
ZIC1	Zic family member 1 (odd-paired homolog, Drosophila)	V\$GLIF	-0.18
ZIC1	Zic family member 1 (odd-paired homolog, Drosophila)	V\$GLIF	-0.22
ZIC4	Zic family member 4	V\$GLIF	-0.02
ZIC5	Zic family member 5 (odd-paired homolog, Drosophila)	V\$GLIF	-0.22
AR	androgen receptor (dihydrotestosterone receptor; testicular feminization; spinal and bulbar muscular atrophy; Kennedy disease)	V\$GREF	-0.09
NR3C1	nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)	V\$GREF	-0.48

Gene Symbol	GeneName	TFBS families	Pearson's correlation
NR3C2	nuclear receptor subfamily 3, group C, member 2	V\$GREF	0.12
PGR	progesterone receptor	V\$GREF	-0.61
CBFA2T2	core-binding factor, runt domain, alpha subunit 2; translocated to, 2	V\$HAML	0.38
CBFA2T3	core-binding factor, runt domain, alpha subunit 2; translocated to, 3	V\$HAML	-0.11
CBFB	core-binding factor, beta subunit	V\$HAML	0.48
CBFB	core-binding factor, beta subunit	V\$HAML	0.43
RUNX1	runt-related transcription factor 1 (acute myeloid leukemia 1; aml1 oncogene)	V\$HAML	-0.37
RUNX1T1	runt-related transcription factor 1; translocated to, 1 (cyclin D-related)	V\$HAML	-0.56
RUNX2	runt-related transcription factor 2	V\$HAML	-0.07
RUNX3	runt-related transcription factor 3	V\$HAML	0.06
HOXA2	homeobox A2	V\$HOXF	-0.34
HOXA3	homeobox A3	V\$HOXF	-0.47
HOXA4	homeobox A4	V\$HOXF	-0.34
HOXA5	homeobox A5	V\$HOXF	-0.34
HOXB2	homeobox B2	V\$HOXF	0.27
HOXB2	homeobox B2	V\$HOXF	0.33
HOXB3	homeobox B3	V\$HOXF	0.17
HOXB3	homeobox B3	V\$HOXF	0.08
HOXB4	homeobox B4	V\$HOXF	-0.11
HOXB4	homeobox B4	V\$HOXF	-0.70
HOXB5	homeobox B5	V\$HOXF	0.06
HOXB6	homeobox B6	V\$HOXF	0.08
HOXB6	homeobox B6	V\$HOXF	0.10
HOXB7	homeobox B7	V\$HOXF	-0.22
HOXB8	homeobox B8	V\$HOXF	0.37
HOXC5	homeobox C5	V\$HOXF	0.16
HOXD8	homeobox D8	V\$HOXF	-0.13
HOXA7	homeobox A7	V\$HOXF	-0.32
IRF1	interferon regulatory factor 1	V\$IRFF	-0.40
IRF4	interferon regulatory factor 4	V\$IRFF	-0.98
IRF4	interferon regulatory factor 4	V\$IRFF	-0.88
IRF8	interferon regulatory factor 8	V\$IRFF	-0.98
LHX2	LIM homeobox 2	V\$LHXF	-0.69
LHX6	LIM homeobox 6	V\$LHXF	-0.24
LMX1B	LIM homeobox transcription factor 1, beta	V\$LHXF	0.68
MAZ	MYC-associated zinc finger protein (purine-binding transcription factor)	V\$MAZF	0.15
MAZ	MYC-associated zinc finger protein (purine-binding transcription factor)	V\$MAZF	0.03
PATZ1	POZ (BTB) and AT hook containing zinc finger 1	V\$MAZF	0.49
PATZ1	POZ (BTB) and AT hook containing zinc finger 1	V\$MAZF	0.55
PATZ1	POZ (BTB) and AT hook containing zinc finger 1	V\$MAZF	0.58
SIX5	sine oculis homeobox homolog 5 (Drosophila)	V\$MEF3	-0.39
ZNF239	zinc finger protein 239	V\$MOKF	-0.54
MYT1	myelin transcription factor 1	V\$MYT1	0.34
MZF1	myeloid zinc finger 1	V\$MZF1	-0.48
HIVEP1	human immunodeficiency virus type I enhancer binding protein 1	V\$NFKB	0.21
HIVEP2	human immunodeficiency virus type I enhancer binding protein 2	V\$NFKB	0.38
HIVEP3	human immunodeficiency virus type I enhancer binding protein 3	V\$NFKB	-0.75
NFKB2	nuclear factor of kappa light polypeptide gene enhancer in B-cells 2 (p49/p100)	V\$NFKB	0.08
REL	v-rel reticuloendotheliosis viral oncogene homolog (avian)	V\$NFKB	-0.58
RELB	v-rel reticuloendotheliosis viral oncogene homolog B, nuclear factor of kappa light polypeptide gene enhancer in B-cells 3 (avian)	V\$NFKB	-0.18
ZNF423	zinc finger protein 423	V\$OAZF	-0.16