

Supplemental Table S2

Details of cell lines used in the ChromHMM annotation states and chromatin markers analyses

List of cell lines used in ChromHMM annotation states analysis (Fig. 1C), denoted 'ChromHMM' in the column names 'Analysis Type'. In addition, we list the ENCODE cell lines used in the analysis of chromatin markers (Fig. 1E and Supplemental Fig. S1D-E), denoted 'Chromatin markers' in the column named 'Analysis Type'. The data were downloaded from the ENCODE Project: <https://genome.ucsc.edu/ENCODE/downloads.html>

Cell	Description	Lineage	Tissue	Karyotype	Analysis Type	Corresponding to Fig.#
A549	epithelial cell line derived from a lung carcinoma tissue	endoderm	lung	Cancer	Chromatin marks	Fig.1E, Supplemental Fig.S1D
AG04449	fetal buttock/thigh fibroblast		skin	Normal	Chromatin marks	Fig.1E
AoAF	aortic adventitial fibroblast cells	mesoderm	blood vessel	Normal	Chromatin marks	Fig.1E
NHA	astrocytes	ectoderm	brain	Normal	Chromatin marks	Fig.1E, Supplemental Fig.S1E
BJ	skin fibroblast,normal foreskin		skin	Normal	Chromatin marks	Fig.1E
CD20+	B cells	mesoderm	blood	Normal	Chromatin marks	Fig.1E
Colo829	malignant melanoma	melanoma	skin	Cancer	Chromatin marks	Fig.1E
Dnd41	T cell leukemia with Notch mutation	mesoderm	blood	Cancer	Chromatin marks	Fig.1E
GM06990	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM12801	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM12864	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM12865	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM12866	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM12867	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM12868	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM12869	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM12870	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM12871	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM12872	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM12873	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM12874	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM12875	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM12878	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks & ChromHMM	Fig.1C, Fig.1E

Cell	Description	Lineage	Tissue	Karyotype	Analysis Type	Corresponding to Fig.#
GM12891	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM12892	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM18507	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
GM19239	B-lymphocyte, lymphoblastoid	mesoderm	blood	Normal	Chromatin marks	Fig.1E
H1HESC	neurons derived from H1 embryonic stem cells	ectoderm	neurons	ESC	Chromatin marks & ChromHMM	Fig.1C, Fig.1E, Supplemental Fig.S1D-E
HAc	astrocytes-cerebellar	ectoderm	cerebellar	Normal	Chromatin marks	Fig.1E
HAsp	astrocytes spinal cord	ectoderm	spinal cord	Normal	Chromatin marks	Fig.1E
HCM	cardiac myocytes	mesoderm	heart	Normal	Chromatin marks	Fig.1E
HCT116	colorectal carcinoma	endoderm	colon	Cancer	Chromatin marks	Fig.1E
HeLa-S3	cervical carcinoma	ectoderm	cervix	Cancer	Chromatin marks	Fig.1E
HepG2	hepatocellular carcinoma	endoderm	liver	Normal	Chromatin marks & ChromHMM	Fig.1C, Fig.1E
HFF	foreskin fibroblast		foreskin	Cancer	Chromatin marks	Fig.1E
HL60	promyelocytic leukemia cells	mesoderm	blood	Normal	Chromatin marks	Fig.1E
HMEC	mammary epithelial cells	ectoderm	breast	Normal	Chromatin marks & ChromHMM	Fig.1C, Fig.1E
HMF	mammary fibroblasts		mammary	Normal	Chromatin marks	Fig.1E
HPAF	pulmonary artery fibroblasts	mesoderm	blood vessel	Normal	Chromatin marks	Fig.1E
HRE	renal epithelial cells	mesoderm	epithelium	Normal	Chromatin marks	Fig.1E
HSMM	skeletal muscle myoblasts	mesoderm	muscle	Normal	Chromatin marks & ChromHMM	Fig.1C, Fig.1E
HTR8svn	trophoblast (HTR-8/SVneo) cell line, a thin layer of ectoderm	ectoderm	blastula	Normal	Chromatin marks	Fig.1E
HUVEC	umbilical vein endothelial cells	mesoderm	blood vessel	Normal	Chromatin marks & ChromHMM	Fig.1C, Fig.1E
HVMF	villous mesenchymal fibroblast cells		connective	Cancer	Chromatin marks	Fig.1E
K562	lymphoblastoid human erythroleukemia cell line	mesoderm	blood	Cancer	Chromatin marks & ChromHMM	Fig.1C, Fig.1E
MCF7	mammary gland, adenocarcinoma	ectoderm	breast	Normal	Chromatin marks	Fig.1E
Mel_2183	Melanoma cell line derived from melanoma metastasis	melanoma	skin	Cancer	Chromatin marks	Fig.1E

Cell	Description	Lineage	Tissue	Karyotype	Analysis Type	Corresponding to Fig.#
MonoCD14	Monocytes-CD14+ are CD14-positive cells from leukapheresis production	mesoderm	melanoma	Cancer	Chromatin marks	Fig.1E
NB4	acute promyelocytic leukemia cell line	mesoderm	blood	Normal	Chromatin marks	Fig.1E
PFSK1	neuroectodermal cell line derived from cerebral brain tumor	ectoderm	brain	Normal	Chromatin marks	Fig.1E, Supplemental Fig.S1E
NHDFAd	adult dermal fibroblasts	mesoderm	skin	Normal	Chromatin marks	Fig.1E
NHDFneo	neonatal dermal fibroblasts	mesoderm	skin	Normal	Chromatin marks	Fig.1E
NHEK	epidermal keratinocytes	ectoderm	skin	Normal	Chromatin marks & ChromHMM	Fig.1C, Fig.1E
NHLF	lung fibroblasts	endoderm	lung	Normal	Chromatin marks & ChromHMM	Fig.1C, Fig.1E, Supplemental Fig.S1F
Osteobl	osteoblasts (NH0st)	mesoderm	bone	Cancer	Chromatin marks	Fig.1E
PANC1	pancreatic carcinoma	endoderm	pancreas	Normal	Chromatin marks	Fig.1E
PanIsletD	dedifferentiated human pancreatic islets	endoderm	pancreas	Cancer	Chromatin marks	Fig.1E
BE2C	neuroblastoma, BE-C is a clone of the SK-N-BE neuroblastoma cell line	ectoderm	brain	Cancer	Chromatin marks	Fig.1E, Supplemental Fig.S1E
SAEC	small airway epithelial cells	endoderm	epithelium	Cancer	Chromatin marks	Fig.1E
SKNMC	neuroepithelioma cell line derived from a metastatic supra-orbital human brain tumor	ectoderm	brain	Cancer	Chromatin marks	Fig.1E, Supplemental Fig.S1E
SKNSHRA	neuroblastoma cell line, treatment: differentiated with retinoic acid	ectoderm	brain	Cancer	Chromatin marks	Fig.1E, Supplemental Fig.S1E
T47D	epithelial cell line derived from a mammary ductal carcinoma.		breast	Cancer	Chromatin marks	Fig.1E
U87	glioblastoma, astrocytoma	ectoderm	brain	Cancer	Chromatin marks	Fig.1E, Supplemental Fig.S1E
WERIRb1	retinoblastoma	ectoderm	eye	Cancer	Chromatin marks	Fig.1E

Abbreviations

Normal - somatic non-transformed cell lines

Cancer - transformed cancer cell lines

ESC - embryonic cell lines