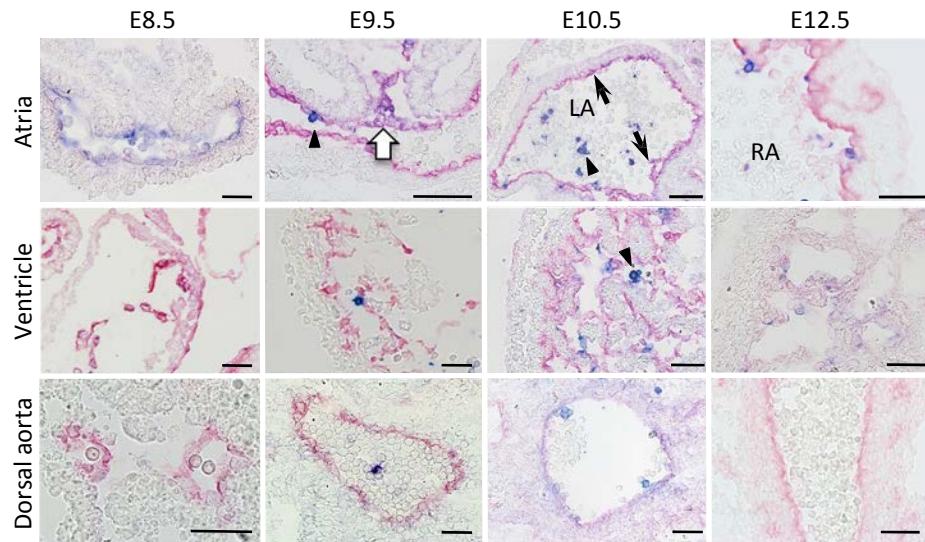


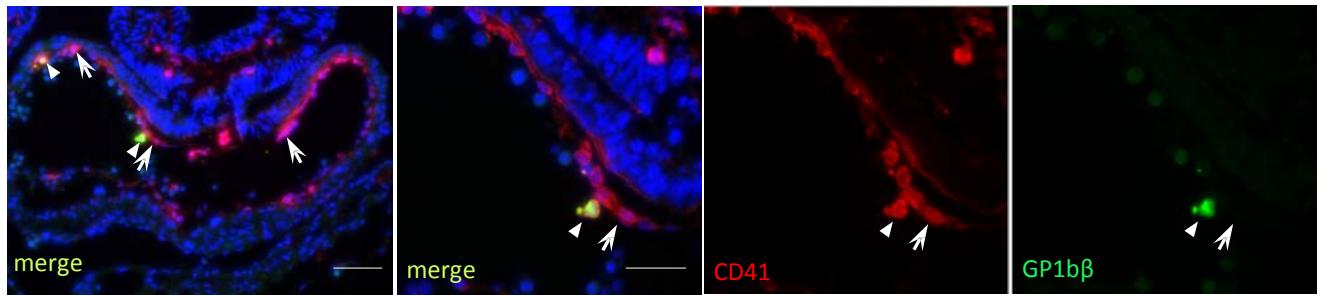
Supplementary Figure S1: Model for developmental pathway of hemogenic endocardium

a. Distribution of hemogenic endocardial cells. Cardiovascular system at around E9.5 in mouse embryo. CD41⁺ endocardial cells (red dots) are clustered in the endocardium of outflow tract (OFT) cushion, aortic sac, aortic arches, and dorsal mesocardium in inflow tract (IFT). Blue dots indicate hemogenic endothelial cells that emerge shortly after. **b.** Model for diversification of cardio-vasculo-hematopoietic lineages in the heart tube. Putative common precursor cells expressing Flk1/Isl1/Nkx2-5 give rise to cardio-vasculo-hematopoietic lineages.



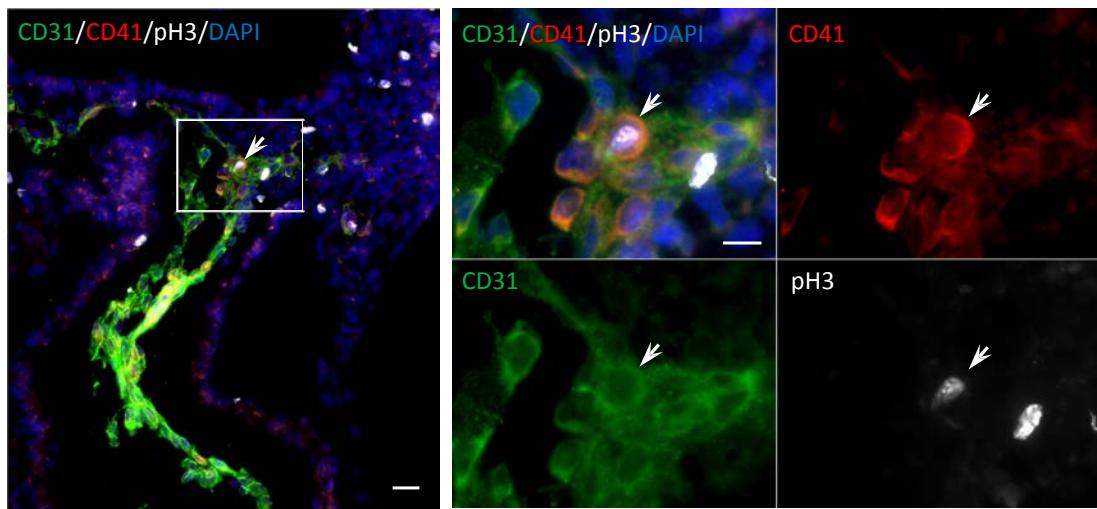
Supplementary Figure S2: Time course of CD41 expression in the endocardium

Expression of CD41 (blue) and CD31 (red) in the heart and dorsal aorta are examined at different stages. Black arrows indicate CD41⁺ putative hematopoietic progenitors emerging in the endocardium. White arrow indicates a cluster of CD41⁺ cells in the dorsal wall of atrial endocardium. Arrowheads indicate circulating CD41⁺ hematopoietic progenitors. Note that CD41⁺ cells are found at E8.5 in the endocardium, but not until E10.5 in the dorsal aorta. LA, left atrium; RA, right atrium. Scale bars = 50μm.



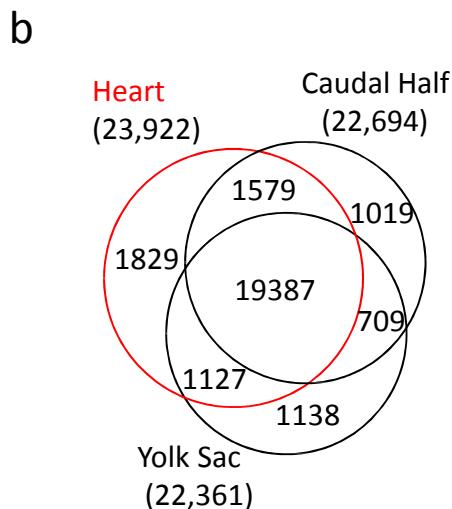
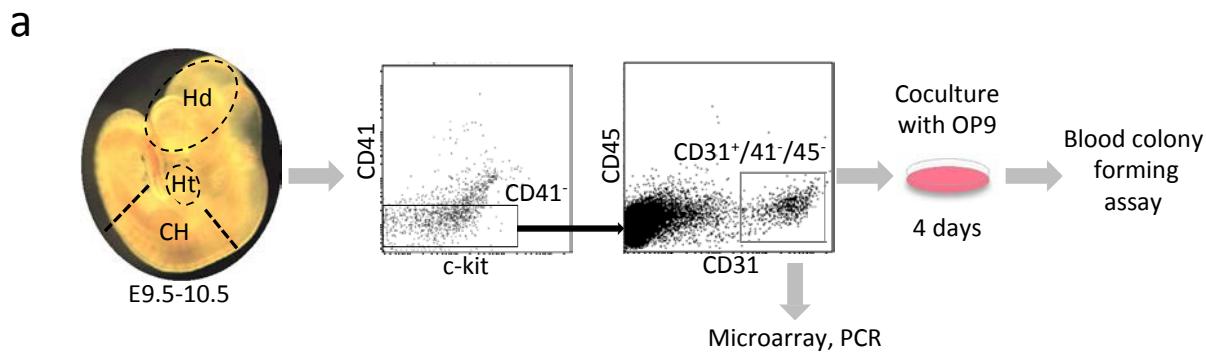
Supplementary Figure S3: Majority of CD41⁺ endocardial cells are non-megakaryocytes/platelets

E9.5 atrium is stained for CD41 (red), GP1b β (megakaryocyte/platelet marker, green) and DAPI (blue). Majority of CD41⁺ cells are GP1b β negative (arrows). Arrowheads indicate double positive megakaryocyte/platelets. Scale bar = 50 μ m (low magnification, far left), 25 μ m (high magnification).



Supplementary Figure S4: CD41⁺ endocardial cell is proliferating *in situ*.

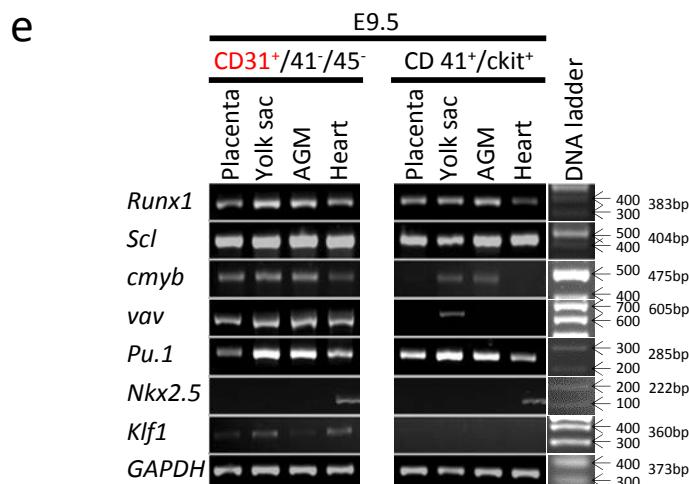
E9.5 OFT stained for CD31 (green), CD41 (red), phospho-histone H3 (pH3, mitosis marker, white) and DAPI (blue). Four right panels are the higher magnification of the broken-lined area of the left panel, showing the mitotic activity of a CD31+/CD41+ cell *in situ* (arrow). Scale bar=20μm (low magnification on the left), 10μm (high magnification on the right).



C

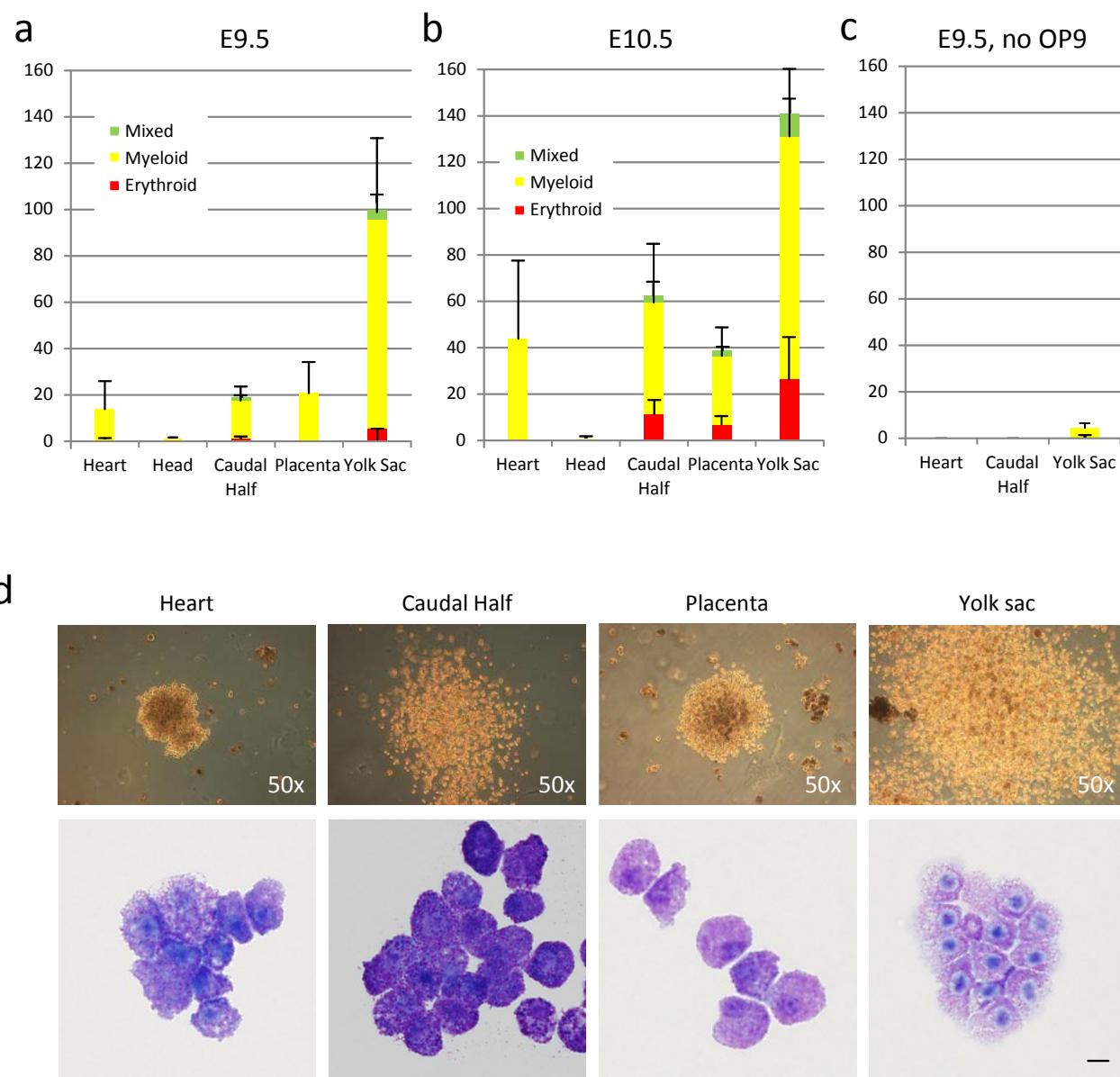
GO Term	Gene Counts	P-Value
vasculature development	180	6.91E-10
blood vessel morphogenesis	144	1.42E-08
cardiac muscle tissue development	46	3.85E-05
nitrogen compound biosynthetic process	192	1.35E-04
heart morphogenesis	54	7.16E-04
striated muscle tissue development	84	0.002713695
vasculogenesis	33	0.003024326
erythrocyte homeostasis	38	0.003109244
erythrocyte differentiation	36	0.003482675
ion transmembrane transport	32	0.004334291
cardiac muscle tissue morphogenesis	16	0.007322665
T cell homeostasis	16	0.007322665
striated muscle cell differentiation	59	0.012083208
cardiac muscle cell differentiation	22	0.01371367
hemopoiesis	149	0.037078145
heart process	12	0.045265731
regulation of striated muscle cell differentiation	17	0.046617841
positive regulation of mesenchymal cell proliferation	17	0.046617841
endothelial cell migration	10	0.048671774

GO Term	Gene Counts	P-Value	Genes
regulation of myeloid cell differentiation	8	0.001080522	tal1, hmgb3, hif1a, ldb1, stat5b, tcfe3, rbm15, ctnnb1
negative regulation of myeloid cell differentiation	5	0.003923182	hmgb3, ldb1, stat5b, rbm15, ctnnb1
regulation of erythrocyte differentiation	4	0.005667524	tal1, hif1a, ldb1, stat5b
hemopoietic or lymphoid organ development	18	0.008577517	xrcc5, stat5b, klf11, smad5, brca2, nfkb1, cbfb, ctnnb1, tal1, hif1a, sp1, sp3, ncoa6, tcea1, rbpj, rbm15, mll1, myst3
myeloid cell differentiation	9	0.011337791	tal1, sp1, sp3, ncoa6, smad5, tcea1, cbfb, ctnnb1, myst3
hemopoiesis	16	0.014502957	xrcc5, stat5b, klf11, smad5, brca2, cbfb, ctnnb1, tal1, hif1a, sp1, sp3, ncoa6, tcea1, rbpj, mll1, myst3
embryonic hemopoiesis	3	0.038326446	hif1a, mll1, myst3
definitive hemopoiesis	3	0.038326446	sp1, sp3, cbfb
erythrocyte differentiation	5	0.065534548	tal1, sp1, sp3, smad5, tcea1
erythrocyte homeostasis	5	0.078276977	tal1, sp1, sp3, smad5, tcea1



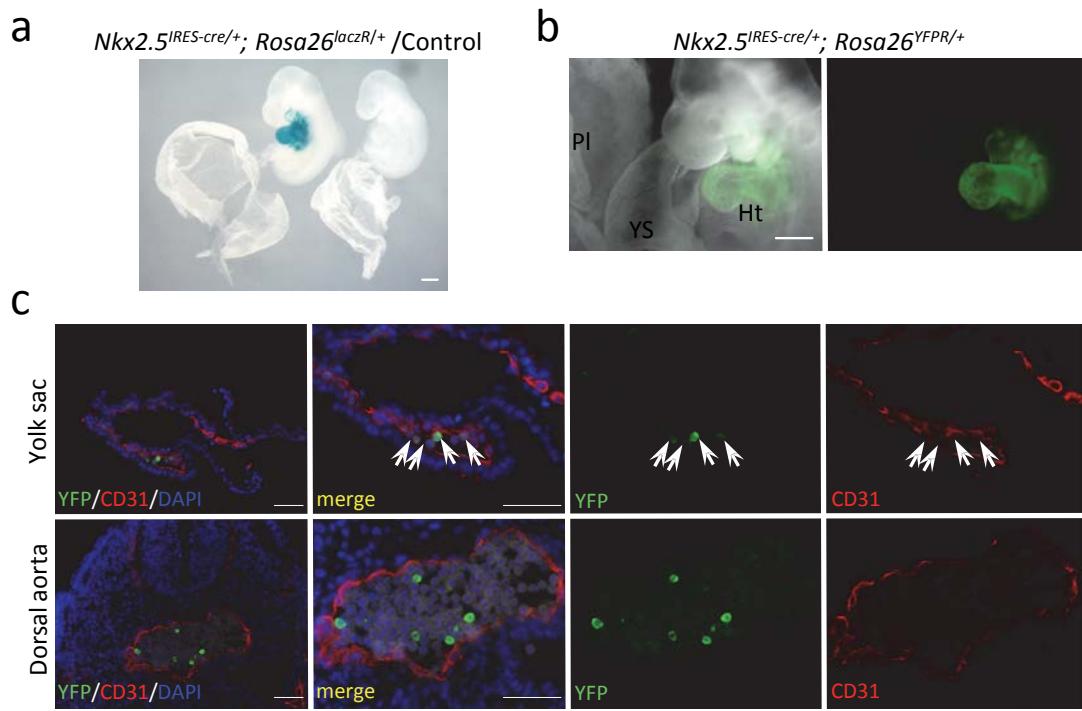
Supplementary Figure S5: Genes expression of FACS-purified endocardial/endothelial cells

a. Schematic representation of the FACS purification procedure. As CD31 is expressed in a fraction of circulating hematopoietic progenitors, local endocardial cells were sorted as CD31⁺/41⁻/45⁻ population from the heart. **b.** Venn diagram of the gene probes in CD31⁺/41⁻/45⁻ population from the heart, caudal half, and yolk sac. **c.** Gene Ontology (GO) analysis of 23,922 genes expressed in the FACS-purified endocardial cells. **d.** Gene Ontology analysis of 481 transcription factors commonly expressed in FACS-purified endocardial/endothelial cells from the heart tube and caudal half at similar levels (within 1.5-fold from each other). See Supplementary Table 2 for the full list of 481 transcription factors. Genes related to hematopoiesis with p-value of 0.01 or less are listed. **e.** Expression of hematopoietic genes are demonstrated by RT-PCR using sorted endocardial/endothelial (CD31⁺/CD41⁻/CD45⁻), and hematopoietic progenitor (CD41⁺/ckit⁺) cell population.



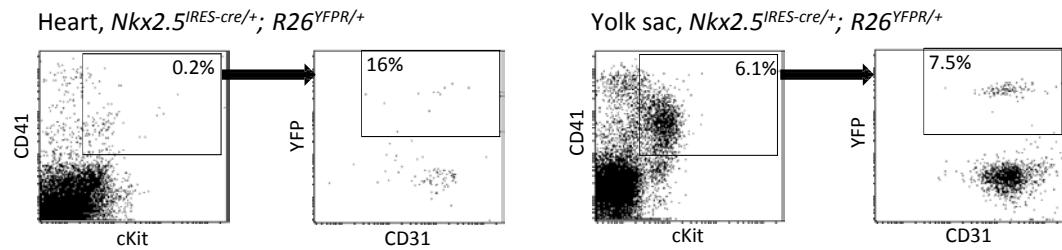
Supplementary Figure S6: Colony forming assay from FACS-purified endocardial/endothelial cells

a, b. OP9/Colony forming assay from CD31⁺/41⁻/45⁻ population from different organs at E9.5 (**a**) and 10.5 (**b**). Mean±SEM. **c.** Colony forming assay without OP9 coculture. The numbers represent the colonies per embryo equivalent from each tissue. **c.** CD31⁺/41⁻/45⁻ cells hardly yielded hematopoietic colony in the absence of OP9 feeder. Mean±SEM. **d.** Microscopic images of representative myeloid colonies from sorted endocardial/endothelial cells from different tissues (upper panels, 50x magnification) and May-Giemsa staining of the cells collected from the corresponding colony (lower panels).



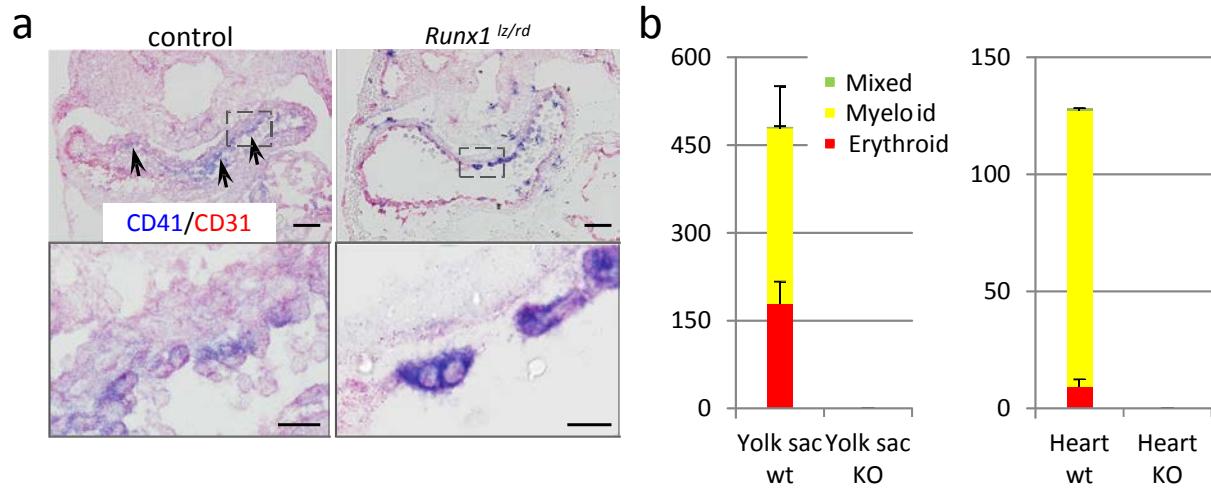
Supplementary Figure S7 : Lineage tracing of Nkx2.5⁺ cells

a. *Nkx2.5^{IRES-cre/+}; Rosa26^{lacZR/+}* embryo at E9.5 and its control littermate (*Nkx2.5^{+/+}*; *Rosa26^{lacZR/+}*) stained with Xgal. Scale bar = 250µm. **b.** *Nkx2.5^{IRES-cre/+}; Rosa26^{YFP/+}* embryo at E9.5 observed under fluorescent microscope. Labeled cells were hardly detected in placenta (PI), or yolk sac (YS) at this magnification. Scale bar = 250µm. **c.** Sections of *Nkx2.5^{IRES-cre/+}; Rosa26^{YFP/+}* embryo at E9.5 stained for YFP and CD31. Several endothelial cells are costained for YFP in the yolk sac on the section (upper panels, white arrows). Endothelial cells in the dorsal aorta were not YFP positive, although some circulating cells are positive for YFP. Scale bar = 50µm.



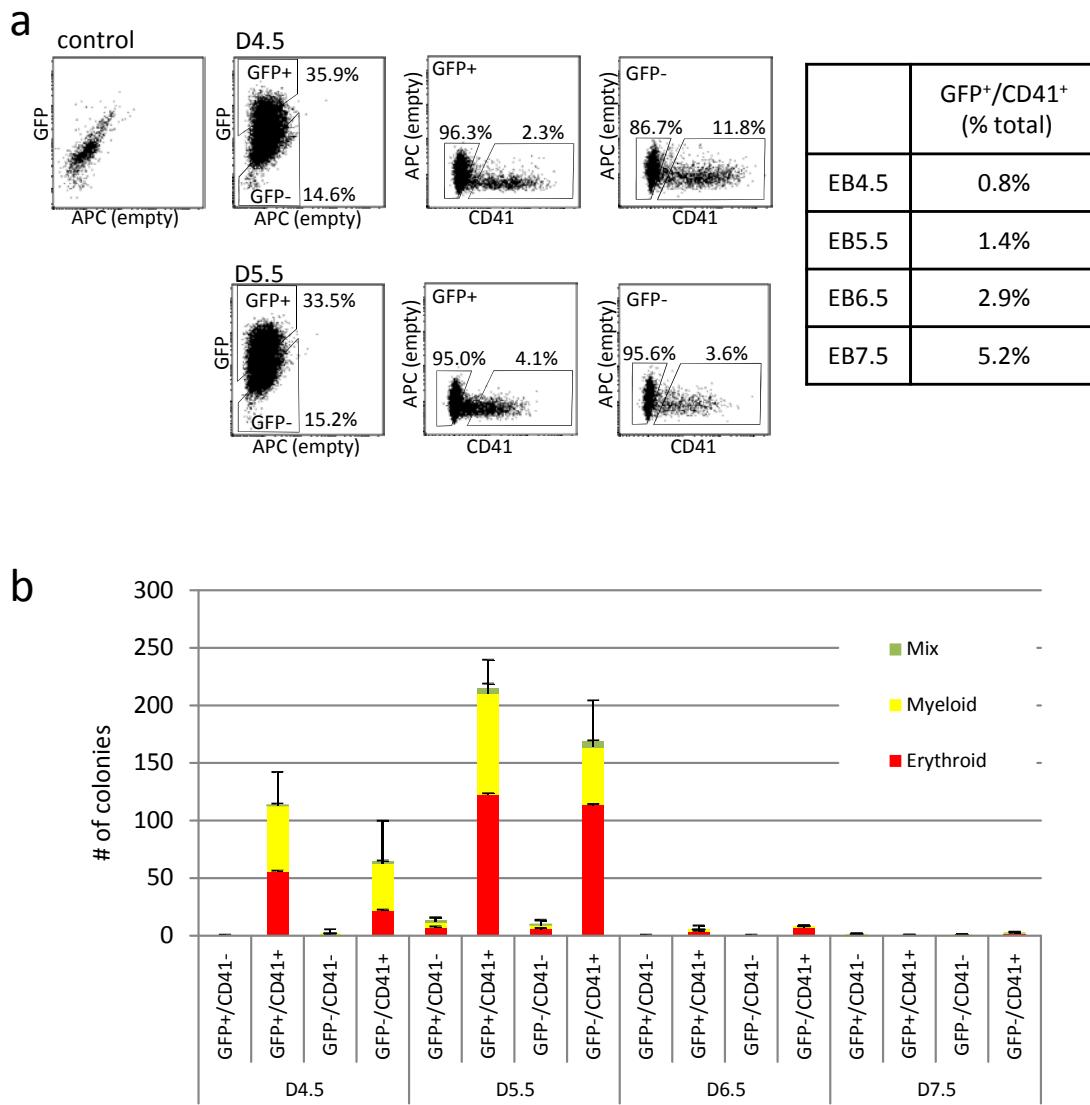
Supplementary Figure S8: Nkx2-5⁺ cells contribute to CD41⁺/c-kit⁺ cell population in the heart tube and yolk sac

FACS analyses from *Nkx2.5*^{IRES-cre/+}; *R26*^{YFP/+} heart tube and yolk sac at E9.5. 0.2% of the total cells in the heart tube were CD41⁺/c-kit⁺, among which 16% were derived from Nkx2-5⁺ cells.



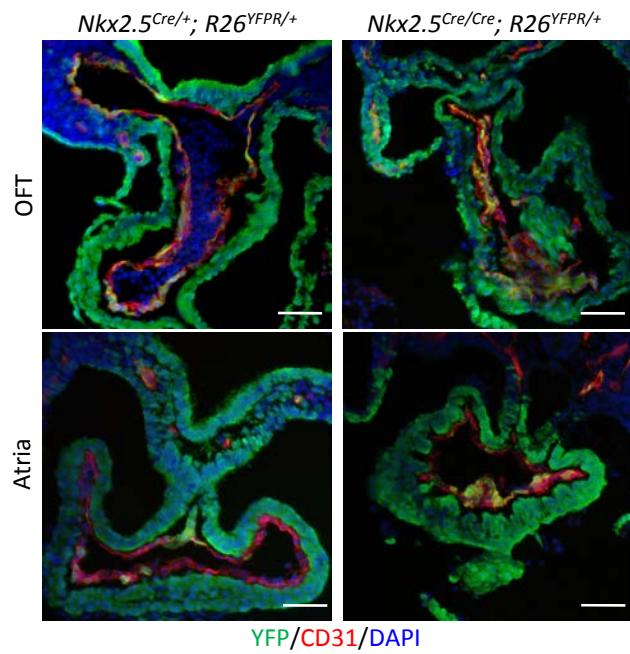
Supplementary Figure S9: CD41 expression in the endocardium of *Runx1* null embryo

a. Expression of CD41 (blue) and CD31 (red) in the wild-type and *Runx1*^{lz/rd} (null) heart at E9.5. Black arrows indicate CD41⁺ putative hematopoietic progenitors emerging in the endocardium. Scale bars = 100μm (low magnification), 25μm (high magnification). **b.** Colony formation assay from endocardial cells sorted from wild-type and *Runx1* mutant tissues. No colony was formed from



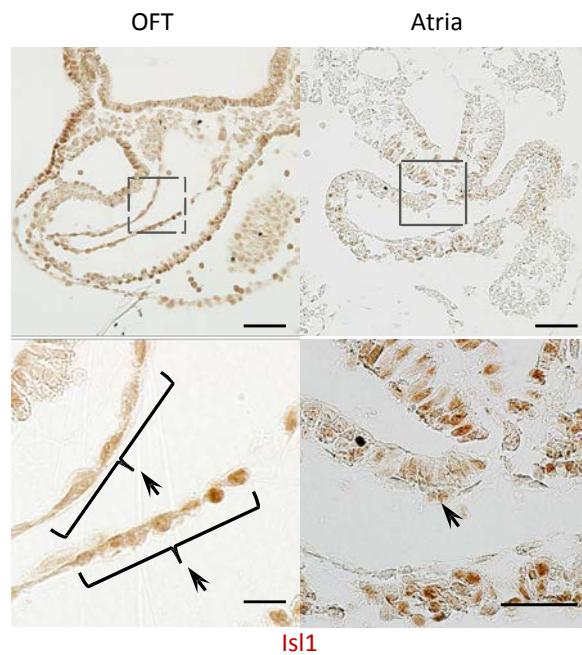
Supplementary Figure S10 : Isolation of Nkx2.5⁺ hematopoietic cells from mouse ES cells

a. FACS profiling of embryoid bodies generated from Nkx2.5-GFP transgenic ES cells. Wild-type E14tg2a ES cell line was used as a control. **b.** Colony formation from GFP⁺/CD41⁺ cells. 20,000 of sorted cells were co-cultured on OP9 for 4 days followed by methylcellulose culture in the presence of cytokines. Note that GFP⁺/CD41⁺ cells from day 4.5 and 5.5 embryoid bodies formed erythroid, myeloid and mixed colonies. Although GFP⁺/CD41⁺ cells were also identified at day 6.5 and 7.5, they did not efficiently form blood colonies. Mean±SEM.



Supplementary Figure S11: Nkx2.5-driving cells migrate to the endocardium in the absence of Nkx2.5.

Nkx2.5 lineage was traced in Nkx2.5-hetero (left panels) and null (right panels) background. YFP+ endocardial cells were identified in the outflow tract and atria of $Nkx2.5^{Cre/Cre}; R26^{YFPR/+}$ embryo at E9.5. Scale bars = 100 μ m.



Supplementary Figure S12 : Expression of Isl1 in the outflow cushion and atrial endocardium.

Wild-type heart was stained for Isl1. Note that Isl1 is expressed in a subset of the outflow cushion and atrial endocardium. Scale bar = 100 μ m (low magnification, upper panels), 50 μ m (high magnification, lower panels).

Supplementary Table S1. 149 genes expressed in endocardium related to hemopoiesis including 38 transcription factors.

Gene Symbol	Gene Name	Normalized Expression Value in wt control endocardium
ACIN1	apoptotic chromatin condensation inducer 1	2749.4855
ada	adenosine deaminase	435.7501
Adam17	a disintegrin and metalloproteinase domain 17	1258.87
Add1	adducin 1 (alpha)	783.38435
Add2	adducin 2 (beta)	187.27925
AHCTF1	AT hook containing transcription factor 1	555.4982
APC	similar to adenomatosis polyposis coli; adenomatosis polyposis coli	2153.7665
ATP6VOA1	ATPase, H ⁺ transporting, lysosomal V0 subunit A1	406.87415
ATP7A	ATPase, Cu ⁺⁺ transporting, alpha polypeptide	1547.0125
AY036118	cDNA sequence AY036118	34511.48
Bak1	BCL2-antagonist/killer 1	1159.5475
BAX	BCL2-associated X protein	926.95775
BCL11A	B-cell CLL/lymphoma 11A (zinc finger protein)	116.291375
BCL11B	B-cell leukemia/lymphoma 11B	129.879465
BCL2	predicted gene 3655; B-cell leukemia/lymphoma 2	333.37895
Bcl3	B-cell leukemia/lymphoma 3	75.06171
BCL6	B-cell leukemia/lymphoma 6	102.39338
Blim	Bloom syndrome homolog (human)	704.49815
BMP4	bone morphogenetic protein 4	447.81605
BPGM	2,3-bisphosphoglycerate mutase	211.89
Brcat2	breast cancer 2	485.9751
CACNB4	calcium channel, voltage-dependent, beta 4 subunit	47.885825
CASP8	caspase 8	741.8728
Cbfa2t3	core-binding factor, runt domain, alpha subunit 2, translocated to, 3 (human)	66.984465
Cfb	core binding factor beta	5272.682
Cd1d1		118.19585
Cd1d2	CD1d1 antigen; CD1d2 antigen	32.786177
Cd24a	CD24a antigen	9950.181
Cdk6	cyclin-dependent kinase 6	424.4338
CEBPG	CCAAT/enhancer binding protein (C/EBP), gamma	187.82665
CHUK	conserved helix-loop-helix ubiquitous kinase	1044.1128
CIAPI1	cytokine induced apoptosis inhibitor 1	313.34125
CRIP2	cysteine rich protein 2	2185.1085
CTNNB1	catenin (cadherin associated protein), beta 1	1524.8435
DCLRE1C	DNA cross-link repair 1C, PSO2 homolog (<i>S. cerevisiae</i>) Dnaj	92.94306
DNAJA3	(Hsp40) homolog, subfamily A, member 3 phenylalkylamine	1057.3835
EBP	Ca ²⁺ -antagonist (emopamil) binding protein early growth	416.26115
Egr1	response 1	1759.631
Epas1	endothelial PAS domain protein 1; similar to Endothelial PAS domain protein 1	2280.233
Ercc1	excision repair cross-complementing rodent repair deficiency, complementation group 1	129.861785
Fas	Fas (TNF receptor superfamily member 6)	20.9477405
FECH	ferrochelatase	237.27445
FOXP1	forkhead box P1	838.7582
G6pdx	glucose-6-phosphate dehydrogenase X-linked	1436.587
Gadd45g	growth arrest and DNA-damage-inducible 45 gamma	287.1346
GMPR2	guanosine monophosphate reductase 2	1072.696
Gpr183	G protein-coupled receptor 183	68.417775
Hba-a1		7.7340334
Hba-a1 /// Hba	hemoglobin alpha, adult chain 2; hemoglobin alpha, adult chain 1	299.1725
Hba-x		489.11055
Hbb-b1 /// Hb	hemoglobin, beta adult major chain; hemoglobin, beta adult minor chain	217.9607
HDACS	histone deacetylase 5	151.83765
Hdac7	histone deacetylase 7; similar to histone deacetylase 7A	334.0727
Hells	helicase, lymphoid specific	563.06
HEPH	hephaestin	1448.226
HIF1A	hypoxia inducible factor 1, alpha subunit	298.94265
HOXA9	homeo box A9	113.83412
HOXB3	homeo box B3	88.79998
HOXB4	homeo box B4	57.457115
HS1BP3	HCLS1 binding protein 3	88.90962
ID2	inhibitor of DNA binding 2	1246.764
IL15	interleukin 15	81.43784
Irif1	interferon regulatory factor 1	217.9399
Itpkb	inositol 1,4,5-trisphosphate 3-kinase B	635.5867
Jak2	Janus kinase 2	701.30475
JMJD6	jumonji domain containing 6	702.8474
KDR	kinase insert domain protein receptor	3193.2875
KIRREL3	kin of IRRE like 3 (<i>Drosophila</i>)	13.329821
KIT	kit oncogene	103.14063
Klf1	Kruppel-like factor 1 (erythroid)	297.58245
Klf11	Kruppel-like factor 11	425.30375
LIG4	ligase IV, DNA, ATP-dependent	295.59305
LYN	Yamaguchi sarcoma viral (v-yes-1) oncogene homolog	1583.447
maeA	macrophage erythroblast attachser	1595.668
MALT1	mucosa associated lymphoid tissue lymphoma translocation gene 1	160.51335
med1	mediator complex subunit 1	378.9397
MEIS1	Meis homeobox 1	585.86805
MEN1	multiple endocrine neoplasia 1	30.0931

Mfsd7b	major facilitator superfamily domain containing 7B	99.892155
MINK1	misshapen-like kinase 1 (zebrafish)	157.36085
MITF	microphthalmia-associated transcription factor	106.94688
Mll1	myeloid/lymphoid or mixed-lineage leukemia 1	1020.2536
MLL5	myeloid/lymphoid or mixed-lineage leukemia 5	231.70175
Msh2	mutS homolog 2 (E. coli)	1271.379
MYH9	myosin, heavy polypeptide 9, non-muscle	313.4124
MYO1E	myosin IE	55.252045
MYST3	MYST histone acetyltransferase (monocytic leukemia) 3	945.01595
ncaph2	non-SMC condensin II complex, subunit H2	50.109015
NCOA6	nuclear receptor coactivator 6	415.5924
NCOR1	nuclear receptor co-repressor 1	40.6599
OSTM1	osteopetrosis associated transmembrane protein 1	680.8857
PATZ1	POZ (BTB) and AT hook containing zinc finger 1	83.020715
PBX1	pre B-cell leukemia transcription factor 1; region containing RIKEN cDNA 2310056B04 gene; pre B-cell leukemia transcription factor 1	171.50845
Pgm3	phosphoglucomutase 3	1067.04335
PICALM	phosphatidylinositol binding clathrin assembly protein	114.3032
Pik3r1	phosphatidylinositol 3-kinase, regulatory subunit, polypeptide 1 (p85 alpha)	1135.2615
Pknox1	Pbx/knotted 1 homeobox	1102.7363
PLCG2	phospholipase C, gamma 2	90.923585
p1scr1	phospholipid scramblase 1; predicted gene 5530; hypothetical protein LOC677340	860.87215
PML	promyelocytic leukemia	121.957145
PPP3CB	protein phosphatase 3, catalytic subunit, beta isoform	1702.977
prdx3	peroxiredoxin 3	1411.9625
PRKDC	protein kinase, DNA activated, catalytic polypeptide	271.43945
Psen1	presenilin 1	161.1921
psen2	presenilin 2	300.8799
PTPN22	protein tyrosine phosphatase, non-receptor type 22 (lymphoid)	2.46360565
RB1	retinoblastoma 1	93.746575
Rbpj	recombination signal binding protein for immunoglobulin kappa J region	565.8991
rogdi	rogdi homolog (Drosophila)	159.13485
RPA1	replication protein A1	1687.092
rpl22	similar to 60S ribosomal protein L22 (Heparin binding protein HBp15); ribosomal protein L22 pseudogene; predicted gene 6784; ribosomal protein predicted gene 4327; predicted gene 8683; similar to 40S ribosomal protein S19; predicted gene 4510; predicted gene 13143; predicted gene 9646; ribosomal protein S19; predicted gene 9091; predicted gene 6636; predicted gene 14072	1010.6605
rps19	predicted gene 5618; predicted gene 6476; predicted gene 4796; ribosomal protein S6; predicted gene 8172; similar to 40S ribosomal protein S6; predicted gene 14138; similar to ribosomal protein S6; predicted gene 13654; predicted gene 8779; predicted gene 8925; predicted gene 11263	9704.6675
RPS6	predicted gene 14138; similar to ribosomal protein S6; predicted gene 13654; predicted gene 8779; predicted gene 8925; predicted gene 11263	582.93645
Satb1	special AT-rich sequence binding protein 1	545.17865
SFXN1	sideroflexin 1	1268.912
sgpl1	sphingosine phosphate lyase 1	206.5466
SH2B3	similar to lymphocyte-specific adaptor protein Lnk; SH2B adaptor protein 3	847.1335
SLC11A2	solute carrier family 11 (proton-coupled divalent metal ion transporters), member 2	72.57386
slc25a38	hypothetical protein LOC100048873; solute carrier family 25, member 38	202.15225
Smad5	MAD homolog 5 (Drosophila)	3114.033
Sod2	superoxide dismutase 2, mitochondrial	526.18965
Sox4	SRY-box containing gene 19; SRY-box containing gene 4	705.0027
Sox6	SRY-box containing gene 6	414.27685
sp1	trans-acting transcription factor 1	4044.292
SP3	trans-acting transcription factor 3	743.92095
STAT5A	signal transducer and activator of transcription 5A	181.9108
Stat5b	signal transducer and activator of transcription 5B	370.2271
TACC3	transforming, acidic coiled-coil containing protein 3	5316.6955
tal1	T-cell acute lymphocytic leukemia 1	796.3158
TCEA1	transcription elongation factor A (SII) 1	1356.9055
tcf3	transcription factor E2a	564.8224
TGFB1	transforming growth factor, beta 1	695.75815
TGFB2	transforming growth factor, beta 2	795.9007
Tgfb2r	transforming growth factor, beta receptor II	11.86643
Tgfbr3	transforming growth factor, beta receptor III	4192.1465
TIMP1	tissue inhibitor of metalloproteinase 1	555.34125
TIPARP	TCDD-inducible poly(ADP-ribose) polymerase	2894.7575
TIRAP	toll-interleukin 1 receptor (TIR) domain-containing adaptor protein	392.2771
TPD52	similar to Tpd52 protein; tumor protein D52	7.942285
TRAF6	TNF receptor-associated factor 6	116.289455
Trp53	transformation related protein 53	20.87478
Twsg1	twisted gastrulation homolog 1 (Drosophila)	1324.7955
VEGFA	vascular endothelial growth factor A	177.5533
vps33a	vacuolar protein sorting 33A (yeast)	60.76119
WWP1	predicted gene 13416; WW domain containing E3 ubiquitin protein ligase 1	1186.24
Xrc4	hypothetical protein LOC100044170; X-ray repair complementing defective repair in Chinese hamster cells 4	252.16095
XRC5	X-ray repair complementing defective repair in Chinese hamster cells 5	579.5788
ZBTB16	zinc finger and BTB domain containing 16	63.120685
Zfp826	zinc finger protein 826	309.237

Supplementary Table S2. 481 genes commonly expressed in endocardial/endothelial cells in the heart tube and caudal half of the embryo

ProbeID	Gene	Gene Name	Heart_expression	CaudalHalf_expression
1415702_a_at	1415702_a_at	Unknown	10508.18228	9455.933336
1415735_at	Ddb1	damage specific DNA binding protein 1	30360.68395	28038.61386
1415796_at	Dazap2	DAZ associated protein 2	8510.9657	9479.840258
1415799_at	Wbp11	WW domain binding protein 11	2940.766113	4146.568045
1415888_at	Hdgf	hepatoma-derived growth factor	12212.69823	16673.75044
1415945_at	Mcm5	minichromosome maintenance deficient 5, cell division cycle 46 (<i>S. cerevisiae</i>)	10190.0934	14032.23933
1416018_at	Dr1	down-regulator of transcription 1	2837.516459	3998.708802
1416030_a_at	Mcm7	minichromosome maintenance deficient 7 (<i>S. cerevisiae</i>)	3824.54094	4781.50341
1416035_at	Hif1a	hypoxia inducible factor 1, alpha subunit	2409.99819	1984.69389
1416045_a_at	Smarcb1	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily b, member 1	10083.79474	13738.63845
1416081_at	Smad1	MAD homolog 1 (<i>Drosophila</i>)	489.9234671	443.566708
1416135_at	Apex1	apurinic/apurimidinic endonuclease 1	15859.47178	20190.67284
1416155_at	Hmgb3	high mobility group box 3	35427.64932	50288.51631
1416198_at	Th1l	TH1-like homolog (<i>Drosophila</i>)	2191.058502	2413.366691
1416214_at	Mcm4	minichromosome maintenance deficient 4 homolog (<i>S. cerevisiae</i>)	15434.01648	16821.69736
1416224_at	Zbtb17	zinc finger and BTB domain containing 17	281.5270342	267.971575
1416250_at	Btg2	B-cell translocation gene 2, anti-proliferative	958.5553698	1241.197649
1416270_at	Polr2g	polymerase (RNA) II (DNA directed) polypeptide G	16915.10983	13489.03772
1416331_a_at	Nfe2l1	nuclear factor, erythroid derived 2-like 1	2847.368482	2729.450959
1416336_s_at	Snrd1	small nuclear ribonucleoprotein D1	62962.4956	76226.81126
1416341_at	Polr2c	polymerase (RNA) II (DNA directed) polypeptide C	3431.563847	3761.488145
1416350_at	Klf16	Krppel-like factor 16	660.5829374	815.7981817
1416422_a_at	Ssb	Sjogren syndrome antigen B	5631.52689	7924.388357
1416505_at	Nr4a1	nuclear receptor subfamily 4, group A, member 1	1613.765455	1205.237031
1416532_at	Ttrap	transformation/transcription domain-associated protein	3188.676434	2387.914221
1416544_at	Ezh2	enhancer of zeste homolog 2 (<i>Drosophila</i>)	17085.29488	15100.02118
1416545_at	Zdhd7	zinc finger, DHHC domain containing	1615.618193	2110.226329
1416630_at	Id3	inhibitor of DNA binding 3	43486.15605	37500.36634
1416638_at	Sall2	sal-like 2 (<i>Drosophila</i>)	3436.414166	2635.047033
1416692_at	Coil	coilin	215.0005171	268.6826165
1416722_at	Hmg20a	high mobility group 20A	2632.95017	2056.23814
1416732_at	Top2b	topoisomerase (DNA) II beta	21300.01724	15871.80122
1416826_a_at	Med20	mediator complex subunit 20	1419.717257	1851.174644
1416959_at	Nr1d2	nuclear receptor subfamily 1, group D, member 2	696.1187554	866.0459265
1417004_at	Tsg101	tumor susceptibility gene 101	3413.723685	2350.419055
1417010_at	Zfp238	zinc finger protein 238	3792.145848	4533.487172
1417119_at	Zfp1	zinc finger like protein 1	873.2910324	769.2305867
1417238_at	Ewsr1	Ewing sarcoma breakpoint region 1	5526.266448	6488.45622
1417296_at	Atf1	activating transcription factor 1	20521.34702	24222.55099
1417302_at	Rcor2	REST corepressor 2	321.5914449	419.0334333
1417387_at	Mesd1	mediator of RNA polymerase II transcription, subunit 31 homolog (yeast)	2599.088484	2488.955336
1417406_at	Sertad1	SERTA domain containing 1	4937.133064	7345.684929
1417440_at	Arid1a	AT rich interactive domain 1A (SWI-like)	14175.42245	12691.90532
1417493_at	Bmi1	Bmi1 polycomb ring finger oncogene ring finger protein 19A	1319.29691	1891.293068
1417509_at	Rnf19a	pleiomorphic adenoma gene-like 2	6306.297712	5284.003787
1417517_at	Plagl2	general transcription factor IIF, polypeptide 1	4167.587196	2931.606615
1417698_at	Gtf2i1	sin3 associated polypeptide	20735.06114	24770.46033
1417719_at	Sap30	polymerase (RNA) II (DNA directed) polypeptide J	8101.678297	11409.34709
1417720_at	Polr2j	THO complex 4	7798.546589	9473.260176
1417724_at	Thoc4	methyl-CpG binding domain protein 3	15452.81281	20737.51318
1417728_at	Mbd3	polyglutamine binding protein 1	1030.97493	1273.791829
1417731_at	Pqbp1	DNA methyltransferase 1-associated protein 1	10894.07095	14630.94809
1417742_a_at	Dmap1	WW domain containing transcription regulator 1	2493.661503	2490.917551
1417818_at	Wwtr1	mediator of RNA polymerase II transcription, subunit 4 homolog (yeast)	5453.25614	4405.43668
1417844_at	Med4	PWP1 homolog (<i>S. cerevisiae</i>)	10650.00265	12603.64691
1417873_at	Pwp1	interleukin enhancer binding factor 2	9888.289548	11048.38543
1417892_a_at	Sirt3	sirtuin 3 (silent mating type information regulation 2, homolog) 3 (<i>S. cerevisiae</i>)	362.5221289	431.4599717
1417949_at	Ifi2	MMS19 (MET18 <i>S. cerevisiae</i>)	5787.084267	4907.019253
1417967_at	Mms19	Unknown	1750.208475	2279.562603
1418157_at	1418157_at	transcription factor AP4	550.5765021	779.6899787
1418167_at	Tcfap4	trans-acting transcription factor 1	146.3527162	189.7223079
1418180_at	Sp1	upstream transcription factor 2	2059.757967	2271.632961
1418241_at	Usf2	Krppel-like factor 6	1073.301498	1343.486493
1418280_at	Klf6	CCCTC-binding factor	101242.0082	118886.0482
1418330_at	Ctcf	M-phase phosphoprotein 8	7706.008356	8648.129348
1418388_s_at	Mphosph8	zinc finger protein 275	14128.33398	20151.65477
1418397_at	Zfp275	metal response element binding transcription factor 2	2908.053892	2140.266548
1418515_at	Mtf2	TAF6 RNA polymerase II, TATA box binding protein (TBP)-associated facto	7387.610076	5103.17056
1418593_at	Taf6	v-maf musculoaponeurotic fibrosarcoma oncogene family, protein K (avian)	1959.503078	1550.684828
1418616_at	Mafk	circadian locomotor output cycles kaput	1605.545407	1694.935149
1418660_at	Clock	pterin 4 alpha carbolinamine dehydratase/dimerization cofactor of hepatocyte nuclear factor 1 alpha (TCF1) 1	1043.275301	788.9910103
1418713_at	Pcbd1	regulatory factor X-associated protein	818.9675663	579.3739628
1418859_at	Rfxap	pre B-cell leukemia transcription factor 2	795.1685659	1032.898193
1418893_at	Pbx2	Fas death domain-associated protein	8778.447669	8462.144755
1419026_at	Daxx	lymphoblastic leukemia 1	1549.900537	2107.812714
1419076_a_at	Brc2a	breast cancer 2	1189.01071	1622.006753
1419111_at	Ing2	inhibitor of growth family, member 2	3367.929966	4748.792082
1419120_at	Lyl1	zinc finger protein 326	3252.5601	3590.054751
1419181_at	Zfp326	transcription elongation factor A (SII) 1	3897.867787	3154.090421
1419257_at	Tceal1	small nuclear ribonucleoprotein B	25775.45517	32366.95115
1419260_a_at	Snrpb	nuclear transcription factor-Y beta	3486.225706	5078.789717
1419266_at	Nfyb	hexamethylene bis-acetamide inducible 1	3720.177941	4245.925534
1419359_at	Hexim1	retinoic acid receptor, gamma	375.6381883	291.7903894
1419380_at	Zfp423	forkhead box C1	1295.158376	1723.316897
1419416_a_at	Rarg	pituitary tumor-transforming gene 1	331.9634234	471.2951592
1419485_at	Foxc1	pituitary tumor-transforming gene 1	856.9486767	1026.529855
1419620_at	Ptgg1	UPF1 regulator of nonsense transcripts homolog (yeast)	861.5958117	1284.045185
1419621_at	Ankrd2	TATA box binding protein (Tbp)-associated factor, RNA polymerase I,	121.2851624	115.7354736
1419685_at	Upf1	nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 3	15989.21542	19714.92487
1419702_at	Taf1a	MAF1 homolog (<i>S. cerevisiae</i>)	1513.95704	1427.822813
1419976_s_at	Nrfat3	zinc finger protein 334	3655.729368	3949.950972
1420047_at	Maf1	CCAAT/enhancer binding protein zet	1386.19571	1764.117882
1420110_s_at	Zfp334	zinc finger protein 334	2594.845994	1829.462838
1420497_a_at	Cebpz	CCAAT/enhancer binding protein zet	20550.40035	30266.78325

1420645_at	Pcgf2	polycomb group ring finger 2	2896.089696	2185.306251
1420675_at	Zfp113	zinc finger protein 113	438.8144853	348.4920397
1420731_a_at	Csrp2	cysteine and glycine-rich protein 2	32375.13353	24422.16228
1420961_a_at	Ivns1abp	influenza virus NS1A binding protein	7692.535994	9681.525033
1420992_at	Ankrd1	ankyrin repeat domain 1 (cardiac muscle)	373.8743889	420.9434655
1421047_at	1421047_at	Unknown	7170.059494	4880.91386
1421094_at	Zfib33	zinc finger and BTB domain containing 33	504.7859825	665.9202299
1421111_at	Rybp	RING1 and YY1 binding protein	2585.029995	3789.825878
1421115_a_at	Zdhhc16	zinc finger, DHHC domain containing 16	1632.171127	1995.510034
1421193_a_at	Pbx3	pre-B-cell leukemia transcription factor 3	1805.263316	2085.812661
1421292_a_at	Cobra1	cofactor of BRCA1	3938.452958	4177.775409
1421322_a_at	Irif9	interferon regulatory factor 9	154.1984694	156.171281
1421910_at	Tcf20	transcription factor 20	12258.24568	14791.42846
1422102_a_at	Stat5b	signal transducer and activator of transcription 5B	180.5974258	250.6197888
1422131_at	Dcp1a	DCP1 decapping enzyme homolog A (<i>S. cerevisiae</i>)	619.7216444	792.3291072
1422135_at	Zfp146	zinc finger protein 146	3394.464346	2530.879324
1422311_a_at	Polr2a	polymerase (RNA) II (DNA directed) polypeptide A	16748.46698	14552.91411
1422398_at	Hist1h1e	histone cluster 1, H1e	30136.667792	39288.85189
1422487_at	Smad4	MAD homolog 4 (<i>Drosophila</i>)	19211.72007	14489.15361
1422503_s_at	Parp1	poly (ADP-ribose) polymerase family, member 1	2585.502722	3471.653038
1422517_a_at	Zrnd1	zinc ribbon domain containing, 1	4412.592555	5749.363272
1422522_at	Fxr2	fragile X mental retardation, autosomal homolog 2	1694.884381	1587.926369
1422599_s_at	Zfp143	zinc finger protein 143	854.630788	1108.924813
1422676_at	Smarc1	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily e, member 1	15846.34392	10896.5003
1422680_at	Ctr9	Ctr9, Paf1/RNA polymerase II complex component, homolog (<i>S. cerevisiae</i>)	606.0000623	864.500703
1422692_at	Sub1	SUB1 homolog (<i>S. cerevisiae</i>)	597.8973353	440.2349542
1422731_at	Limd1	LIM domains containing 1	3011.35504	4489.810965
1422737_at	Ncoa3	nuclear receptor coactivator 3	231.9807817	330.4559977
1422742_at	Hivep1	human immunodeficiency virus type I enhancer binding protein 1	1205.254332	1104.811896
1422751_at	Tle1	transducin-like enhancer of split 1, homolog of <i>Drosophila</i> E(sp1)	704.5279842	1002.618663
1422778_at	Taf9	TAF9 RNA polymerase II, TATA box binding protein (TBP)-associated factor	6588.448808	9192.880633
1422946_a_at	Dnm1t	DNA methyltransferase (cytosine-5) 1	7054.494517	7639.907307
1423060_at	Pa2g4	proliferation-associated 2G4	43766.29853	63154.83671
1423069_at	Adhp	activity-dependent neuroprotective protein	24185.24273	23292.24229
1423105_a_at	Yeats4	YEATS domain containing 4	17679.03505	18472.8079
1423128_at	Aip	aryl-hydrocarbon receptor-interacting protein	4477.122553	3780.610928
1423165_a_at	Mta2	metastasis-associated gene family, member 2	1760.35272	1876.806595
1423241_a_at	Tfdp1	transcription factor Dp 1	40422.03854	50088.10563
1423324_at	Pnn	pinin	29419.18508	32525.6915
1423374_at	Ncoa6	nuclear receptor coactivator 6	638.1945023	491.320403
1423398_at	Taf12	TAF12 RNA polymerase II, TATA box binding protein (TBP)-associated factor	5898.703059	6071.814927
1423402_at	Creb1	cAMP responsive element binding protein 1	10304.74636	14383.67659
1423421_at	Ankrd49	ankyrin repeat domain 49	2529.966831	2200.575381
1423501_at	1423501_at	Unknown	3439.131144	2971.492013
1423507_a_at	Sirt2	sirtuin 2 (silent mating type information regulation 2, homolog) 2 (<i>S. cerevisiae</i>)	2290.438057	2088.539668
1423616_at	Tarbp2	TAR (HIV) RNA binding protein 2	464.1641619	625.9335786
1423645_a_at	Ddx5	DEAD (Asp-Glu-Ala-Asp) box polypeptide 5	191103.2868	142208.6479
1423702_at	H1f0	H1 histone family, member 0	26400.63933	20756.64234
1423733_a_at	Fiz1	F13 interacting zinc finger protein 1	1676.631541	2030.260252
1423750_a_at	St1	splicing factor 1	43793.42854	50260.41905
1423796_at	Sfpq	splicing factor proline/glutamine rich (polypyrimidine tract binding protein associated)	11804.35042	9264.485157
1423955_a_at	Lass2	LAG1 homolog, ceramide synthase 2	4359.49151	3600.159356
1423997_at	Csde1	cold shock domain containing E1, RNA binding	20347.34344	16722.40603
1423998_at	Gtf3c5	general transcription factor IIIC, polypeptide 5	861.7919065	1015.464121
1424001_at	Mki67ip	Mki67 (FHA domain) interacting nucleolar phosphoprotein	5100.52854	7658.114019
1424055_at	Ncoa5	nuclear receptor coactivator 5	1351.108667	1407.517576
1424170_at	Phf5a	PHD finger protein 5A	43433.34829	48883.26738
1424216_a_at	Popola	poly (A) polymerase alpha	7035.245702	9656.158237
1424227_at	Polr3h	polymerase (RNA) III (DNA directed) polypeptide H	1028.996998	1399.999513
1424238_at	Sirt7	sirtuin 7 (silent mating type information regulation 2, homolog) 7 (<i>S. cerevisiae</i>)	234.4732696	309.6373057
1424255_at	Supt5h	suppressor of Ty 5 homolog (<i>S. cerevisiae</i>)	13021.01848	13137.86959
1424258_at	Polr2d	polymerase (RNA) II (DNA directed) polypeptide D	3204.242196	3788.84436
1424264_at	Med6	mediator of RNA polymerase II transcription, subunit 6 homolog (yeast)	3441.90973	2582.751718
1424297_at	Zfp282	zinc finger protein 282	259.411498	328.2209799
1424355_a_at	Sin3b	transcriptional regulator, SIN3B (yeast)	4708.45223	6148.696137
1424473_at	Polr2h	polymerase (RNA) II (DNA directed) polypeptide H	23104.80744	30688.74898
1424566_s_at	Polr3d	polymerase (RNA) III (DNA directed) polypeptide D	758.7613456	869.0310173
1424593_at	Ecd	ecdysoneless homolog (<i>Drosophila</i>)	545.315014	476.1547407
1424750_at	Zbtb1	zinc finger and BTB domain containing 1	11453.81008	9384.088622
1424751_at	Abt1	activator of basal transcription 1	480.9862693	619.5658897
1424916_x_at	Zfp764	zinc finger protein 764	1793.990131	1429.999999
1425287_at	Zfp189	zinc finger protein 189	214.2114984	188.3790191
1425350_a_at	Myef2	myelin basic protein expression factor 2, repressor	25717.58209	21053.83301
1425360_at	Milt6	myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, <i>Drosophila</i>); translocated to, 6	160.0319385	202.8664965
1425422_a_at	Pam	poly(A)-specific ribonuclease (deadenylate nuclease)	539.2969483	575.6210821
1425473_at	Med17	mediator complex subunit 17	2070.087432	2466.082703
1425481_at	Cnot6l	CCR4-NOT transcription complex, subunit 6-like	15530.49537	22528.94691
1425585_at	Med12	mediator of RNA polymerase II transcription, subunit 12 homolog (yeast)	3348.119602	2778.202284
1425599_a_at	Gata1	GATA zinc finger domain containing 1	16059.53788	11310.79365
1425806_a_at	Med21	mediator complex subunit 21	5445.02426	4877.049719
1425837_a_at	1425837_a_at	Unknown	1055.913041	1368.663224
1425895_a_at	Id1	inhibitor of DNA binding 1	2133.924829	2318.78899
1425927_a_at	Arf5	activating transcription factor 5	700.9296909	526.5068704
1425940_a_at	Ssbp3	single-stranded DNA binding protein 3	2824.377349	1895.678911
1426051_a_at	Cenpb	centromere protein B	1089.091767	1196.396042
1426187_a_at	Hax1	HCLS1 associated X-1	17333.91623	18984.27219
1426237_at	Sp2	Sp2 transcription factor	1051.751541	1068.885127
1426415_a_at	Trm25	tripartite motif-containing 25	1373.617138	1818.7976
1426437_s_at	Hdac3	histone deacetylase 3	1388.043634	1974.191879
1426470_at	Tbp	TATA box binding protein	176.2731641	153.5543622
1426527_at	Toe1	target of EGR1, member 1 (nuclear)	1743.16997	2200.58866
1426564_at	Zfp553	zinc finger protein 553	9101.686131	7391.765039
1426587_a_at	Stat3	signal transducer and activator of transcription 3	1858.265623	2714.539228
1426625_at	Zfp623	zinc finger protein 623	1170.925921	1396.687771

1426626_at	Gtf2f2	general transcription factor IIF, polypeptide 2	4731.163151	4864.814297
1426719_at	Apbb2	amyloid beta (A4) precursor protein-binding, family B, member 2	4797.50831	6437.052288
1426769_s_at	Maml1	mastermind like 1 (Drosophila)	4559.569817	5187.674216
1426789_s_at	Ssrp1	structure specific recognition protein 1	31371.06864	33711.84472
1426805_at	Smarca4	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 4	16097.54337	12487.09815
1426829_at	Uimc1	ubiquitin interaction motif containing 1	2658.582074	3240.865382
1426878_at	Pbrm1	polybromo 1	2221.775168	1681.692042
1426979_at	Mlxip	MLX interacting protein	999.5934405	1100.943588
1427027_a_at	Gtf3a	general transcription factor III A	2771.397372	3130.8337
1427099_at	Maz	MYC-associated zinc finger protein (purine-binding transcription factor)	6763.820796	7737.905062
1427120_at	Zfp26	zinc finger protein 26	2729.639961	2167.206454
1427156_s_at	Ascc2	activating signal cointegrator 1 complex subunit 2	2712.926989	1942.488925
1427194_a_at	Erc8	excision repairloss-complementing rodent repair deficiency, complementation group 8	717.789284	1075.62438
1427241_at	Papolg	poly(A) polymerase gamma	501.9198519	684.5838234
1427248_at	Whsc2	Wolf-Hirschhorn syndrome candidate 2 (human)	1583.589379	2270.122105
1427283_at	Mll1	myeloid/lymphoid or mixed-lineage leukemia 1	3797.377767	2723.897414
1427460_at	Unknown	Unknown	1154.018228	1534.583668
1427555_at	Mll2	myeloid/lymphoid or mixed-lineage leukemia	963.0173937	1215.984239
1427702_at	Zfp1	zinc finger protein 1	448.9069513	527.3985609
1427705_a_at	Nlkb1	nuclear factor of kappa light polypeptide gene enhancer in B-cells 1, p105	736.5957556	1015.674657
1427762_x_at	Hist1h2bp	histone cluster 1, H2bp	25537.46238	25990.44302
1427808_at	Nfyb	nuclear transcription factor-Y alpha	989.1154403	1347.862385
1427888_at	Rnf6	ring finger protein (C3H2C3 type) 6	3940.835106	3513.58546
1427940_s_at	Mycbp	c-myc binding protein	817.9919404	1078.304017
1428092_at	Cdc5l	cell division cycle 5-like (S. pombe)	8196.094149	8752.744128
1428170_at	Zfp180	zinc finger protein 180	742.8509264	727.0934566
1428249_at	Pygo2	pygopus 2	2291.062196	1664.330041
1428263_a_at	Tceb2	transcription elongation factor B (SIII), polypeptide 2	19595.191119	28350.74407
1428348_at	Gzf1	GDNF-inducible zinc finger protein 1	273.3296457	245.2816904
1428382_at	Smarcc2	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 2	5518.255716	6166.977602
1428494_a_at	Polr2i	polymerase (RNA) II (DNA directed) polypeptide	10484.19291	12088.58182
1428508_at	Tbc1d2b	TBC1 domain family, member 2B	925.2599791	970.6602703
1428522_at	Ttf2	transcription termination factor, RNA polymerase II	2386.548697	2968.932235
1428576_at	Hif1an	hypoxia-inducible factor 1, alpha subunit inhibitor	3005.846785	2044.864697
1428704_at	Zfp661	zinc finger protein 661	1070.724395	813.2966416
1428760_at	Snapc3	small nuclear RNA activating complex, polypeptide	3681.321241	4088.759826
1428773_s_at	Bcor	BCL6 interacting corepressor	1115.739224	1546.964892
1428830_at	Atm	ataxia telangiectasia mutated homolog (human)	4209.677683	3469.871742
1428997_at	Phf23	PHD finger protein 23	4451.661434	6190.505992
1428999_at	Phf3	PHD finger protein 3	7255.16993	9481.673162
1429046_at	Smurf2	SMAD specific E3 ubiquitin protein ligase 2	30904.54147	28032.55289
1429064_at	Dip2c	DIP2 disco-interacting protein 2 homolog C (Drosophila)	930.4238404	633.6788476
1429125_at	Zbtb9	zinc finger and BTB domain containing 9	1665.203278	1252.930963
1429170_at	Mtf1	metal response element binding transcription factor 1	858.7436873	1236.124855
1429294_at	Trip13	thyroid hormone receptor interactor 13	12874.6698	19018.57741
1429335_at	Snapc1	small nuclear RNA activating complex, polypeptide 1	732.8681671	904.9763463
1429557_at	Mcm8	minichromosome maintenance deficient 8 (S. cerevisiae)	1668.87284	1903.810696
1429903_at	Dpf2	D4, zinc and double PHD fingers family 2	290.329851	199.9796623
1430047_at	Ankrd32	ankyrin repeat domain 32	3042.443194	3459.451397
1430458_at	Supt6h	suppressor of Ty 6 homolog (S. cerevisiae)	320.6863266	379.6304611
1430533_a_at	Ctnnb1	catenin (cadherin associated protein), beta 1	8698.759435	11445.7333
1431127_at	Zbtb43	zinc finger and BTB domain containing 43	691.3344535	872.8654051
1431345_a_at	Taf1b	TATA box binding protein (Tbp)-associated factor, RNA polymerase I, B	949.6492518	1054.081849
1431676_x_at	Gtf2i	general transcription factor II A, 2	3960.000455	3486.241405
1431804_a_at	Sp3	trans-acting transcription factor 3	2037.394798	2104.886714
1431999_at	Polr3f	polymerase (RNA) III (DNA directed) polypeptide F	193.2496659	272.6223803
1432057_a_at	Prdm5	PR domain containing 5	2248.145446	3414.582632
1432462_a_at	Med27	mediator complex subunit 27	1559.231843	2017.93547
1432495_at	Sox7	SRY-box containing gene 7	527.7389711	370.8935581
1433528_at	Gtf2a2	general transcription factor II A, 2	6269.15561	4901.686876
1433552_a_at	Polr2b	polymerase (RNA) II (DNA directed) polypeptide B	10752.98401	10935.59628
1433555_at	Eaf1	ELL associated factor 1	5917.060095	4495.410481
1433679_at	Fubp3	far upstream element (FUSE) binding protein 3	23501.67046	22513.56622
1433733_a_at	Cry1	cryptochrome 1 (photolyase-like)	1453.852569	2153.344193
1433736_at	Hofc1	host cell factor C1	3267.77685	4512.046341
1433780_at	Ubn1	ubinuclein 1	2019.196535	2513.057226
1433919_at	Asb4	ankyrin repeat and SOCS box-containing 4	8380.605858	6977.469395
1433981_s_at	Kat5	K(lysine) acetyltransferase 5	1238.377733	1124.468902
1434009_at	Grif1	glucocorticoid receptor DNA binding factor 1	1452.431003	1451.465851
1434037_s_at	Kat2b	K(lysine) acetyltransferase 2B	449.922248	320.4884819
1434079_s_at	Mcm2	minichromosome maintenance deficient 2 mitotin (S. cerevisiae)	8221.355708	9691.265759
1434088_at	Zkscan17	zinc finger with KRAB and SCAN domains 1	1224.007143	1105.205899
1434114_at	Rexo4	REX4, RNA exonuclease 4 homolog (S. cerevisiae)	1876.735717	1596.911868
1434318_a_at	Tcf3e	transcription factor E3	1514.573306	1566.933527
1434514_at	Rbm15	RNA binding motif protein 15	1031.841001	992.6442174
1434564_at	E2f3	E2F transcription factor 3	13815.49607	9826.839548
1434627_at	Nrf1	nuclear respiratory factor 1	1541.623216	2001.59564
1434753_at	Nfrkb	nuclear factor related to kappa B binding protein	771.6738286	1062.054219
1434907_at	Tbp1	TATA box binding protein-like 1	847.6631484	814.1737586
1434963_at	Supt3h	suppressor of Ty 3 homolog (S. cerevisiae)	1326.995186	923.5098334
1435224_at	Crebbp	CREB binding protein	32346.71719	24276.56187
1435249_at	Btaf1	BTF4 RNA polymerase II, B-TFIID transcription factor-associated, (Mot1 homolog, S. cerevisiae)	1693.425829	1557.586626
1435362_at	Foxj3	forkhead box J3	13255.64004	9710.890693
1435471_at	Zfp708	zinc finger protein 708	132.6131746	111.0018042
1435474_at	Taf5	TAF5 RNA polymerase II, TATA box binding protein (TBP)-associated facto	4808.772018	6500.587366
1435575_at	Kntc1	kinetochore associated 1	1080.142426	1581.701337
1435592_at	Eif5b	eukaryotic translation initiation factor 5B	646.7587419	791.858633
1435824_at	Yy1	YY1 transcription factor	1728.1448	2276.61531
1435965_at	Cnot3	CCR4-NOT transcription complex, subunit 3	4521.790771	4073.30553
1436023_at	Bclaf1	BCL2-associated transcription factor 1	15640.02922	12585.05315
1436049_at	Tox4	TOX high mobility group box family member	1363.193754	1180.697746
1436068_at	Zbtb10	zinc finger and BTB domain containing 10	15435.58877	16407.57544
1436085_at	Zbtb34	zinc finger and BTB domain containing 34	2333.343218	1828.341383
1436226_at	Tceb1	transcription elongation factor B (SIII), polypeptide 1	7714.446509	5609.676437

1436284_s_at	Zfp319	zinc finger protein 319	167.0340657	232.0520694
1436343_at	Chd4	chromodomain helicase DNA binding protein	9239.146955	6780.436809
1436434_at	E2f2	E2F transcription factor 2	1105.341768	861.2353925
1436790_a_at	Sox11	SRY-box containing gene 11	6525.481724	5438.41775
1436802_at	Ilf3	interleukin enhancer binding factor 3	5681.49432	7245.394498
1436985_at	Zfp644	zinc finger protein 644	9514.703818	6699.507571
1437023_at	Zfp12	zinc finger protein 12	555.2364576	470.1382674
1437039_at	Cops2	COP9 (constitutive photomorphogenic) homolog, subunit 2 (Arabidopsis thaliana)	6043.64738	5010.87384
1437241_at	Klf11	Krppel-like factor 11	1045.661331	954.9751595
1437281_x_at	Xab2	XPA binding protein 2	5815.466886	5147.631319
1437375_at	Rfx3	regulatory factor X, 3 (influences HLA class II expression)	2836.537053	2300.503759
1437414_at	Zfp217	zinc finger protein 217	17380.86672	19648.34284
1437483_at	Zfp513	zinc finger protein 513	340.3746055	403.0773448
1437484_at	Zbtb5	zinc finger and BTB domain containing 5	215.5319761	325.233902
1437487_at	Myst3	MYST histone acetyltransferase (monocytic leukemia) 3	3197.744949	3979.597324
1437508_at	Sp4	trans-acting transcription factor 4	1036.944973	726.6013638
1437543_at	Fubp1	far upstream element (FUSE) binding protein 1	1513.974185	1132.316832
1437571_at	Hic2	hypermethylated in cancer 2	653.1452275	856.8488504
1437585_x_at	Zfp161	zinc finger protein 161	11204.05226	13438.21462
1437623_x_at	Xrcc3	X-ray repair complementing defective repair in Chinese hamster cells 3	952.7838037	1222.395825
1437745_at	Chd7	chromodomain helicase DNA binding protein 7	5774.086314	6963.870499
1437850_a_at	Cnbp	cellular nucleic acid binding protein	137904.3997	136349.549
1437919_at	Bdp1	B double prime 1, subunit of RNA polymerase III transcription initiation factor IIIB	1046.044408	1121.57723
1438047_at	Zfp384	zinc finger protein 384	3353.129631	3686.289835
1438219_at	Pura	purine rich element binding protein A	628.7008148	440.7671191
1438307_at	Hmgb2	high mobility group box 2	237.883813	165.3459322
1438416_at	Med16	mediator complex subunit 16	364.377755	374.1319637
1438487_s_at	Zzz3	zinc finger, ZZ domain containing 3	689.6435231	794.9205948
1438692_at	Gtf3c4	general transcription factor IIIC, polypeptide 4	2095.607523	2481.668026
1438807_at	Hnnpr	heterogeneous nuclear ribonucleoprotein R	1177.669695	893.4507684
1438847_at	Mxd3	Max dimerization protein 3	2488.756378	1975.490051
1438852_x_at	Mcm6	minichromosome maintenance deficient 6 (MIS5 homolog, <i>S. pombe</i>) (<i>S. cerevisiae</i>)	94554.16675	81531.86895
1438912_at	Hdgfp2	hepatoma-derived growth factor, related protein 2	124.7776234	163.2513446
1438938_x_at	Phb2	prohibitin 2	24514.63991	35737.51069
1438992_x_at	Atf4	activating transcription factor 4	27912.46611	29281.25544
1439020_at	AW146020	expressed sequence AW146020	3167.492441	3895.022083
1439296_at	Prickle3	prickle homolog 3 (<i>Drosophila</i>)	13257.40063	12647.59807
1440972_at	Nsd1	nuclear receptor-binding SET-domain protein 1	5473.72874	3860.129376
1441973_at	Zfp295	zinc finger protein 295	258.2762281	204.109717
1442274_at	Zdhhc15	zinc finger, DHHC domain containing 15	2301.088925	1588.754924
1442514_a_at	Ell3	elongation factor RNA polymerase II-like 3	689.3712796	687.7383798
1442623_at	Mef2a	myocyte enhancer factor 2A	2049.495611	1458.618879
1443020_at	Hmbox1	homeobox containing 1	653.0699753	531.2079371
1443897_at	Ddit3	DNA-damage inducible transcript 3	422.9469691	352.793718
1445684_s_at	Hdac2	histone deacetylase 2	51370.01852	41212.89645
1445886_at	Elk3	ELK3, member of ETS oncogene family	6371.770164	9469.510452
1446127_at	Zeb1	zinc finger E-box binding homeobox 1	2361.179001	2595.781091
1446337_at	Htt	huntingtin	187.5431086	156.750106
1447417_at	Taf1	TAF1 RNA polymerase II, TATA box binding protein (TBP)-associated factor	2262.927416	2724.226239
1447432_s_at	Zfp263	zinc finger protein 263	5409.325123	4642.67602
1448103_s_at	Nono	non-POU-domain-containing, octamer binding protein	126068.66165	94857.13555
1448195_at	Taf5l	TAF5-like RNA polymerase II, p300/CBP-associated factor (PCAF)-associated factor	2994.751435	3325.180194
1448246_at	Hdac1	histone deacetylase 1	23099.17366	23576.74072
1448266_at	Edf1	endothelial differentiation-related factor 1	4428.887854	5462.0944
1448282_at	Pigr1	pleiotropic regulator 1, PRL1 homolog (<i>Arabidopsis</i>)	9159.548903	9984.569117
1448401_at	Smardc2	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily d, member 2	1590.58484	1329.506231
1448446_at	Deaf1	deformed epidermal autoregulatory factor 1 (<i>Drosophila</i>)	2437.257318	2229.071704
1448476_at	Nap1l4	nucleosome assembly protein 1-like 4	52571.95962	62822.42432
1448497_at	Erc3	excision repair cross-complementing rodent repair deficiency, complementation group 3	1563.75027	1562.39311
1448519_at	Tead2	TEA domain family member	22295.94098	17736.75445
1448653_at	Eed	embryonic ectoderm development	9285.419856	13394.96047
1448694_at	Jun	Jun oncogene	25719.32803	20709.74545
1448705_at	Zbtb22	zinc finger and BTB domain containing 22	1100.007246	927.0540017
1448707_at	Taf13	TAF13 RNA polymerase II, TATA box binding protein (TBP)-associated factor	11606.93729	8950.314135
1448726_at	Snapc2	small nuclear RNA activating complex, polypeptide	183.3778963	170.7661135
1448758_at	Nrbf2	nuclear receptor binding factor 2	1200.658674	1055.045656
1448794_s_at	Dnajc2	Dnaj (Hsp40) homolog, subfamily C, member	3239.52523	4620.667431
1448808_at	Nme2	non-metastatic cells 2, protein (NM23B) expressed in	272037.4869	262459.3085
1448834_at	Foxm1	forkhead box M1	967.0728366	1405.927022
1448835_at	E2f6	E2F transcription factor 6	8957.362342	10914.11382
1448838_at	Topors	topoisomerase I binding, arginine/serine-rich	10560.76662	12164.66933
1448884_at	Gtf2e2	general transcription factor II E, polypeptide 2 (beta subunit)	7951.797966	9090.220884
1448886_at	Gata3	GATA binding protein 3	582.0340612	566.8125964
1448890_at	Klf2	Kruppel-like factor 2 (lung)	2958.010112	2179.925821
1448893_at	Ncor2	nuclear receptor co-repressor 2	361.2116913	435.4295188
1448916_at	Mafg	v-maf musculoaponeurotic fibrosarcoma oncogene family, protein G (avian)	1112.01846	1449.135724
1448917_at	Med30	mediator complex subunit 30	2059.219904	1796.385485
1448963_at	Nfyc	nuclear transcription factor-Y gamma	2230.966139	2071.491142
1449041_a_at	Tripl6	thyroid hormone receptor interactor 6	14355.07264	16588.11672
1449085_at	Phd10	PHD finger protein 10	9904.348998	10590.70859
1449086_at	Rnf141	ring finger protein 141	5090.204955	3807.12201
1449126_at	Zfp90	zinc finger protein 90	1397.467353	1205.191771
1449148_a_at	Phf1	putative homeodomain transcription factor 1	1746.923365	2248.768899
1449311_at	Bach1	BTB and CNC homology 1	230.9893627	337.0248125
1449363_at	Atf3	activating transcription factor 3	6091.81325	7624.377255
1449389_at	Tal1	T-cell acute lymphocytic leukemia 1	2406.215735	2733.22933
1449480_at	Sap18	Sin3-associated polypeptide 18	1040.028907	1346.102581
1449578_at	Supt16h	suppressor of Ty 16 homolog (<i>S. cerevisiae</i>)	36998.67501	44114.75385
1449643_s_at	1449643_s_at	Unknown	52191.18589	64103.86055
1449815_a_at	Ssbp2	single-stranded DNA binding protein	1609.465482	2292.644134
1449915_at	Zfp202	zinc finger protein 202	165.2333209	137.5550497
1449951_at	Nfkbl1	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor-like 1	1307.217722	1159.116934
1450100_a_at	Tcerg1	transcription elongation regulator 1 (CA150)	12039.36734	13444.22038
1450191_a_at	Sox13	SRY-box containing gene 13	723.5964324	723.8827722

1450333_a_at	Gata2	GATA binding protein 2	3736.636	3185.810028
1450464_at	E4f1	E4F transcription factor 1	917.2679571	1352.421479
1450664_at	Gabpa	GA repeat binding protein, alpha	3393.657291	2744.172471
1450701_a_at	Gtf2h2	general transcription factor II H, polypeptide 2	2403.493691	2850.615631
1450705_at	Rdbp	RD RNA-binding protein	6399.088597	6496.507837
1450723_at	Isl1	ISL1 transcription factor, LIM/homeodomain	1002.225696	1234.888858
1450817_at	Sohl	small optic lobes homolog (Drosophila)	683.0442196	920.1109389
1450929_at	Zfp57	zinc finger protein 57	4032.036374	3551.090269
1451012_a_at	Csda	cold shock domain protein A	61172.92984	87873.14126
1451072_a_at	Rnf4	ring finger protein 4	15668.83413	14172.20071
1451102_at	Cnot8	CCR4-NOT transcription complex, subunit 8	1640.556236	1231.728335
1451135_at	Gtf2b	general transcription factor II B	5818.975052	5165.451974
1451237_s_at	Rbm7	RNA binding motif protein 7	5092.948032	6639.10874
1451244_a_at	Zfp422	zinc finger protein 422	18353.1954	20410.37455
1451252_at	Irf2bp1	interferon regulatory factor 2 binding protein 1	438.9419884	446.8865783
1451323_at	Zfp7	zinc finger protein 7	457.9209153	337.7862858
1451658_a_at	Po1r3c	polymerase (RNA) III (DNA directed) polypeptide C	979.9549501	1353.65385
1451676_at	Drap1	Dr1 associated protein 1 (negative cofactor 2 alpha)	3914.801412	4597.920509
1451920_a_at	Rfc1	replication factor C (activator 1) 1	12106.96845	14250.01373
1451968_at	Xrc5	X-ray repair complementing defective repair in Chinese hamster cells 5	1572.372052	1245.012841
1451984_at	Hmnpul1	heterogeneous nuclear ribonucleoprotein U-like 1	12072.94335	10848.10303
1451995_at	Taf11	TAF11 RNA polymerase II, TATA box binding protein (TBP)-associated factor	2963.120791	2722.074537
1452024_a_at	Ldb1	LIM domain binding 1 zinc	9791.667762	11270.36813
1452045_at	Zfp281	finger protein 281 mediator	2153.074988	2927.215332
1452064_at	Med23	complex subunit 23	791.047912	1015.492441
1452125_at	Thrap3	thyroid hormone receptor associated protein 3	11998.31154	13287.45186
1452179_at	Phf17	PHD finger protein 17	605.984925	512.0079654
1452208_at	Prdm4	PR domain containing 4	4171.763513	3974.360499
1452221_a_at	Cxxc1	CXXC finger 1 (PHD domain)	2241.002633	3178.757784
1452276_at	Smarcad1	SWI/SNF-related, matrix-associated actin-dependent regulator of chromatin, subfamily a, containing DEAD/H box	2085.137556	1371.581738
1452282_at	Med26	mediator complex subunit 26	675.4336933	745.7801233
1452322_a_at	Brdw1	bromodomain and WD repeat domain containing 1	37315.47254	28754.26841
1452364_at	Suz12	suppressor of zeste 12 homolog (Drosophila)	1133.96433	1559.198758
1452550_a_at	Fmr1	fragile X mental retardation syndrome 1 homolog	3553.39154	2642.999528
1452596_at	Po1r2k	polymerase (RNA) II (DNA directed) polypeptide K	15810.91071	20662.10434
1452659_at	Dek	DEK oncogene (DNA binding)	18480.22568	26073.7468
1452697_at	Ctdp1	CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) phosphatase, subunit	3754.254533	3148.026663
1452856_at	Crebzf	CREB/ATF bZIP transcription factor	3311.612874	4353.431114
1452880_at	Znhit3	zinc finger, HIT type 3	2754.93769	3521.993801
1452916_at	Wbp7	WW domain binding protein 7	917.3369155	708.3957719
1452932_at	Zrb7a	zinc finger and BTB domain containing 7a	2934.831669	2063.253255
1452945_at	Zfp157	zinc finger protein 157	342.7724963	255.2214025
1452970_at	Zmym2	zinc finger, MYM-type 2	14683.77039	11145.89717
1453034_at	Zfp251	zinc finger protein 251	9218.713861	8508.71658
1453097_a_at	Ubf1	upstream binding transcription factor, RNA polymerase	7575.441133	10181.16486
1453161_at	Med13	mediator complex subunit 13	1931.065269	1260.253456
1453200_at	Rai1	retinoic acid induced 1	955.2516112	661.3101443
1453209_at	Brl1	BRF1 homolog, subunit of RNA polymerase III transcription initiation factor IIIB (<i>S. cerevisiae</i>)	428.2444686	629.8156475
1453579_at	Phf12	PHD finger protein 12	3823.124836	4430.814795
1453751_at	Dhx38	DEAH (Asp-Glu-Ala-His) box polypeptide 3	6583.677384	8293.309632
1454305_at	Cbx3	chromobox homolog 3 (Drosophila) H1 gamma	271.6325477	218.6930029
1454652_at	Zranb2	zinc finger, RAN-binding domain containing	7235.336089	5606.194349
1454670_at	Rere	arginine glutamic acid dipeptide (RE) repeats	5425.165172	4256.73186
1454765_at	Gtf3c3	general transcription factor IIIC, polypeptide 3	865.3724162	627.2496367
1454776_at	Ehmt1	euchromatic histone methyltransferase 1	4337.86584	4233.797611
1454826_at	Unknown		1933.891024	2223.378058
1454896_at	Rbpj	recombination signal binding protein for immunoglobulin kappa J regio	1039.937039	844.0349701
1454960_at	Smad3	MAD homolog 3 (Drosophila)	5958.892669	4331.181323
1455042_at	Unknown		6600.837267	7294.612074
1455092_at	Zfp207	zinc finger protein 207	19424.07872	13373.70129
1455154_at	Gli3	GLI-Kruppel family member GLI3	4318.685907	2893.233968
1455175_at	Phf13	PHD finger protein 13	4789.156099	5891.379023
1455187_at	1455187_at	Unknown	3007.857845	3473.917071
1455210_at	Zhx2	zinc fingers and homeoboxes 2	848.8160238	813.4109486
1455222_a_at	Ubp1	upstream binding protein 1	11266.90524	8546.204654
1455243_at	Brfp3	bromodomain and PHD finger containing, 3	2642.200702	1752.628899
1455246_at	Smarcc1	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily c, member 1	20200.97538	13969.29939
1455273_at	Zbtb6	zinc finger and BTB domain containing 6	2139.460015	1541.254806
1455323_at	Rbak	RB-associated KRAB repressor	1405.162228	1080.359424
1455552_at	Snapc4	small nuclear RNA activating complex, polypeptide 4	279.7063983	363.6069966
1455625_at	Taf10	TAF10 RNA polymerase II, TATA box binding protein (TBP)-associated factor	884.2036879	676.7618279
1455633_at	Zfp647	zinc finger protein 647	434.5151375	345.1457824
1455655_at	Tardbp	TAR DNA binding protein	12837.61865	16038.86741
1455696_a_at	Prpf4b	PRP4 pre-mRNA processing factor 4 homolog B (yeast)	17495.05679	12447.11513
1455831_at	Fus	fusion, derived from t(12;16) malignant liposarcoma (human)	30585.51483	22899.96883
1455979_at	Arid1b	AT rich interactive domain 1B (SWI-like)	4594.82001	4650.276027
1456037_x_at	Preb	prolactin regulatory element binding	22041.36857	25025.4059
1456227_x_at	Rbbp7	retinoblastoma binding protein 7	67965.27152	64729.09977
1456260_at	Rbbp4	retinoblastoma binding protein 4	3836.122557	5345.460635
1456308_x_at	Trim28	tripartite motif-containing 28	29543.62239	39721.627
1456405_at	Dido1	death inducer-obliterator 1	6249.326149	4942.892263
1456420_at	Arid4a	AT rich interactive domain 4A (RBP1-like)	3676.495967	4773.909809
1456507_at	Zfp454	zinc finger protein 454	351.2669983	270.7770662
1456576_x_at	Cnot2	CCR4-NOT transcription complex, subunit 2	2866.3829	2235.012653
1456699_s_at	Ythdc1	YTH domain containing 1	12833.55472	14194.31452
1456753_at	Foxo4	forkhead box O4	3742.779234	2639.864088
1456789_at	Zfp462	zinc finger protein 462	4861.739201	3640.294583
1457002_at	Zfp408	zinc finger protein 408	11980.58345	11392.21699
1457051_at	1457051_at	Unknown	219.3612469	292.2382639
1457268_at	Dot1l	DOT1-like, histone H3 methyltransferase (<i>S. cerevisiae</i>)	1582.557797	1686.486942
1457285_at	Zfp187	zinc finger protein 187	12181.10199	10682.90434
1457397_at	Klf14	Kruppel-like factor 14	1133.062778	1006.456056
1457900_at	Ascc3	activating signal cointegrator 1 complex subunit 3	8778.462085	7870.344193
1459773_x_at	Snip1	Smad nuclear interacting protein 1	658.54944	783.6308882

CaudalHalf_expression

1459998_at	Zfp407	zinc finger protein 407	719.2037189	533.0083509
1460171_at	Cops5	COP9 (constitutive photomorphogenic) homolog, subunit 5 (Arabidopsis thaliana)	15485.27089	14966.57733
1460252_s_at	Zfp105	zinc finger protein 105	706.7731363	655.2804253
1460364_at	Gtf2ird1	general transcription factor II I repeat domain-containing 1	1738.422475	1304.676271
1460398_at	Phf8	PHD finger protein 8	585.3640985	615.6940574
1460402_at	Brpf1	bromodomain and PHD finger containing, 1	1011.861631	1161.787449
1460403_at	Psip1	PC4 and SFRS1 interacting protein 1	2548.198059	3203.47189
1460547_a_at	Hnrrnpk	heterogeneous nuclear ribonucleoprotein K	156178.5646	143754.6031
1460648_at	Nr2f6	nuclear receptor subfamily 2, group F, member 6	386.0674743	557.7638239
1460692_at	Ehm2	euchromatic histone lysine N-methyltransferase 2	11648.12384	16605.32048
1460716_a_at	Cfbf	core binding factor beta	40851.39667	41089.41567