Supplemetary Figure S1: Primer set sequences

For ChIP assays

Mouse CD4 enhancer 1 region

M-CD4-1 F:GGCCTAGATTTCCCTTCTGAG

M-CD4-1 R: TACTTTCTGTGACTTACAAAGGC

Mouse GPA promoter

M-GPA pr F: GTCCTCGCAGTTATGCAGACC

M-GPA pr R: AGCCAATGTGTGTCAACGGA

Mouse THP promoter

M-THP pr F: GGTGGATGGTGTGGTCACAAC

M-THP pr R: GGTCTTGACACACCAGCTTT

Mouse HS2

M-HS2 F: CCTTGCCTGTTCCTGCTCA

M-HS2 R: CACATGTGACCTGTCTGCCAG

Mouse β major promoter

M-beta maj pr F: CAGTGAGTGGCACAGCATCC

M-beta maj pr R: CAGTCAGGTGCACCATGATGT

Human HS3

H-HS3 F: ACCAGCTATCAGGGCCCAGA

H-HS3 R:AATGCTGCTATGCTGTGCCTC

Human HS2

H-HS2 F: CCTCCCATAGTCCAAGCATGA

H-HS2 R: GTGCTTGAGCCAGAAGGTTTG

Human ε promoter

H-epsilon pr F: TTTGGAAGATGATGAAGAGGG

H-epsilon pr R: GCTGTGTCGGAAGCAGATATG

Human γ promoter

H-gamma pr F: GCCTTGACCAATAGCCTTGACA

H-gamma pr R: GAAATGACCCATGGCGTCTG

Human γ gene

H-gamma gene F: CCTTGGGAGATGCCATAAAGC

H-gamma gene R: TCAAACAGCTCACACCCTGC

Human β promoter

H-beta pr F: GGCTGTCATCACTTAGACCTC

H-beta pr R: GGTTGCTAGTGAACACAGTTG

Human δ promoter

H-delta pr F: GGGCAAGTTAAGGGAAGAGTGG

H-delta pr R: GTGTCTGTTTGAGGTTGCTAGTGA

Mouse Gata-2 -2.8 region: Gras , JA et al. (2003) PNAS 100; 8811-8816.

For RTqPCR assays

Mouse Ikaros cDNA

M-Ik RT F: AACCTGAAAGACAATGGATGTCGATGAGG

M-Ik RT R: AGTGGGGCCTGGCTGGGTTTAGC

Mouse Actin cDNA

M-Actin RT F: ATCGTGGGCCGCCCTAGGCACCA

M-Actin RT R: TCCATGTCGTCCCAGTTGGTAACAA

Mouse Gpa cDNA

M-GPA RT F: GCCGAATGACAAAGAAAAGTTCA

M-GPA RT R: TCAATAGAACTCAAAGGCACACTGT

Mouse Gata-1 cDNA

M-GATA-1 RT F: GCCCCTTGTGAGGCCAGAGAG

M-GATA-1 RT R: CGCTCCAGCCAGATTCGACCC

Mouse Scl/Tal-1 cDNA

M-Scl RT F: TCCCCATATGAGATGGAGATTT

M-Scl RT R: ATTGATGTACTTCATGGCAAGG

Mouse Mi-2 cDNA

M-Mi-2 RT F: CAAGCGGAAGCCACGCCTGA

M-Mi-2 RT R: GCGAGAACCACGGCCGAACA

Mouse Brg1 cDNA

M-BRG1 RT F: CAAGCGGAAGCCCCTGA

M-BRG1 RT R: GCGAGAACCACGGCCGAACA

Mouse Gata-2 cDNA

M-GATA-2 RT F: GCCAGAAGAGCGGGCACCTG

M-GATA-2 RT R: AGAGGCCACAGGCGTTGCAC

Mouse Fog-1 cDNA

M-FOG-1 RT F: AGCAGCCTGTCCACTTTCAT

M-FOG-1 RT R: AAGTGTCAAGGGTCCTGGTG

Mouse EklF cDNA

M-EKLF RT F: ACCACCCTGGGACAGTTTCT

M-EKLF RT R: GAAGGGTCCTCCGATTTCAG

Mouse ζ-globin cDNA

M-zeta RT F: GCGAGCTGCATGCCTACAT

M-zeta RT R: GCCATTGTGACCAGCAGACA

Mouse εy cDNA

M-εy RT F: CAAGCTACATGTGGATCCTGAGAA

M-εy RT R: TGCCGAAGTGACTAGCCAAA

Mouse βh1 cDNA

M-βh1 RT F: AGGCAGCTATCACAAGCATCTG

M-βH1 RT R: AACTTGTCAAAGAATCTCTGAGTCCAT

Mouse βmaj/min cDNA

M-βmaj RT F: GGTGGTCTACCCTTGGACCC

M-βmaj RT R: GATACTTGTGGGCCAGGGCA

Human ε cDNA

Hu-ε RT-F: AGGAGAAGGCTGCCGTCACT

Hu-ε RT-R: AGGGAGACGACAGGTTTCCA

Human γ cDNA

Hu-γ RT-F: CATTTCACAGAGGAGGACAA

Hu-γ RT-R: GTAGACAACCAGGAGCCTT

Qiagen QuantiTect probes (FAM-labelled): GTGGAAGATGCTGGAGG

Human β cDNA

HuβRT-F: CTCGGTGCCTTTAGTGATGG

HuβRT-R: ACACAGACCAGCACGTTG

IDT PrimeTime™ probe (FAM-labelled): CTTGAGGTTGTCCAGGTGAGCCA

Human γ primary start

Hu-γ start F: CCTAGTCCAGACGCCATGGGTC

Hu-γ start R: TCACCAGAGCCTACCTTCCCAGGG

Human γ primary end

Hu-γ end F: TCTGGGTGGAAGCTTGGTG
Hu-γ end R: ACCAGCACATTTCCCAGGAG

Mouse primary gapdh

Mo-gapdh F: GAAGGTTGGTGTGAACGGATTT

Mo-gapdh R: GAATTTGCCATGGGTGGAGT

For 3C assay

LCR-ε

3C-LCR: ATAGCTTGTCTATTTCTCTCTCTAACATAGTTG

3C-huε: AGAAACATAGGAAGAACCAAGAGCTT

LCR-iε/Gγ

3C-LCR: ATAGCTTGTCTATTTCTCTCTCTAACATAGTTG

3C-iε/Gγ: GGCAGATAACTGGTTGGTGAATT

LCR-Aγ

3C-LCR: ATAGCTTGTCTATTTCTCTCTCTAACATAGTTG

3C-Aγ: TTCTCTGAAAGTGATCCATGATCTCT

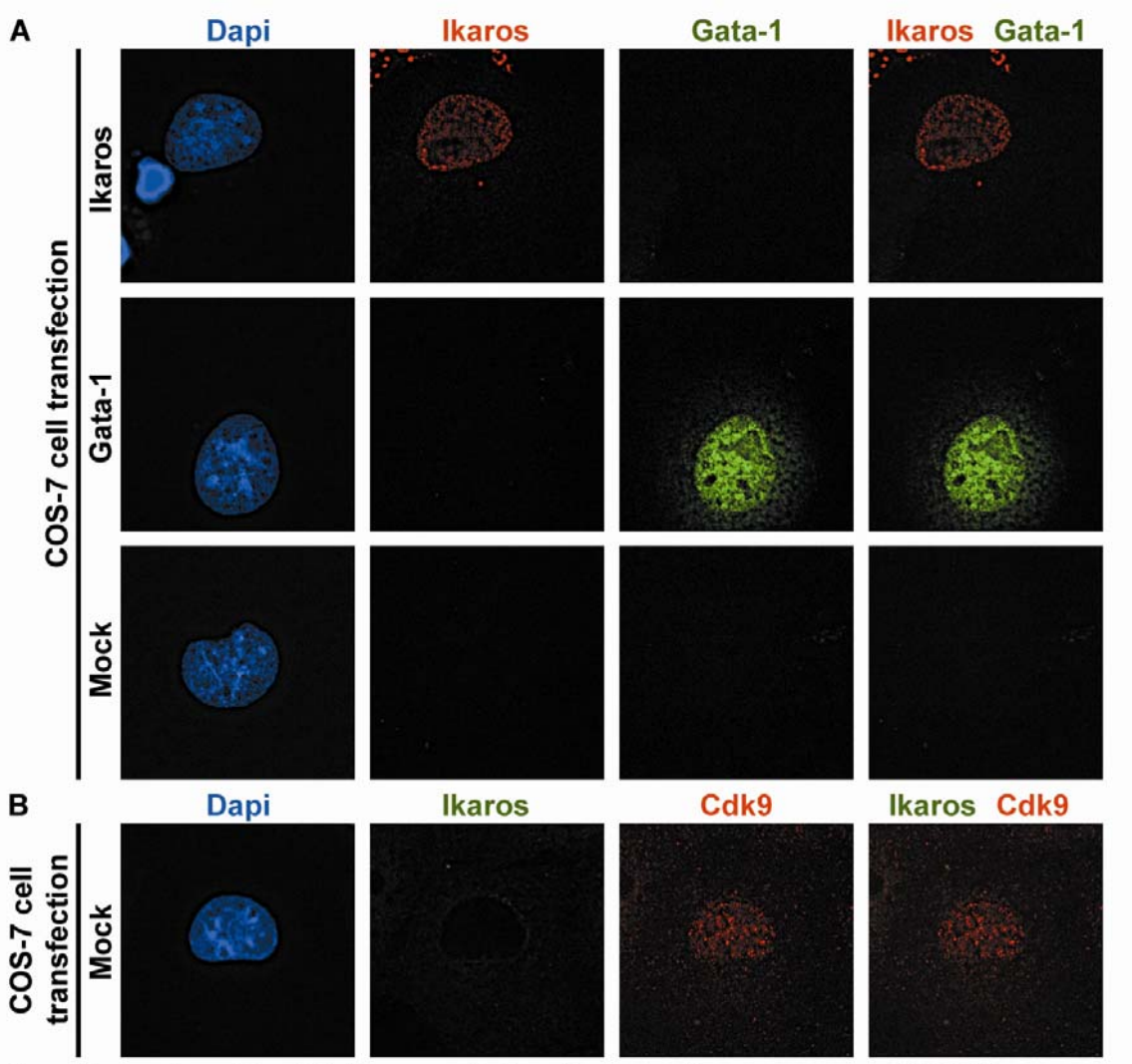
LCR-β

3C-LCR: ATAGCTTGTCTATTTCTCTCTCTAACATAGTTG

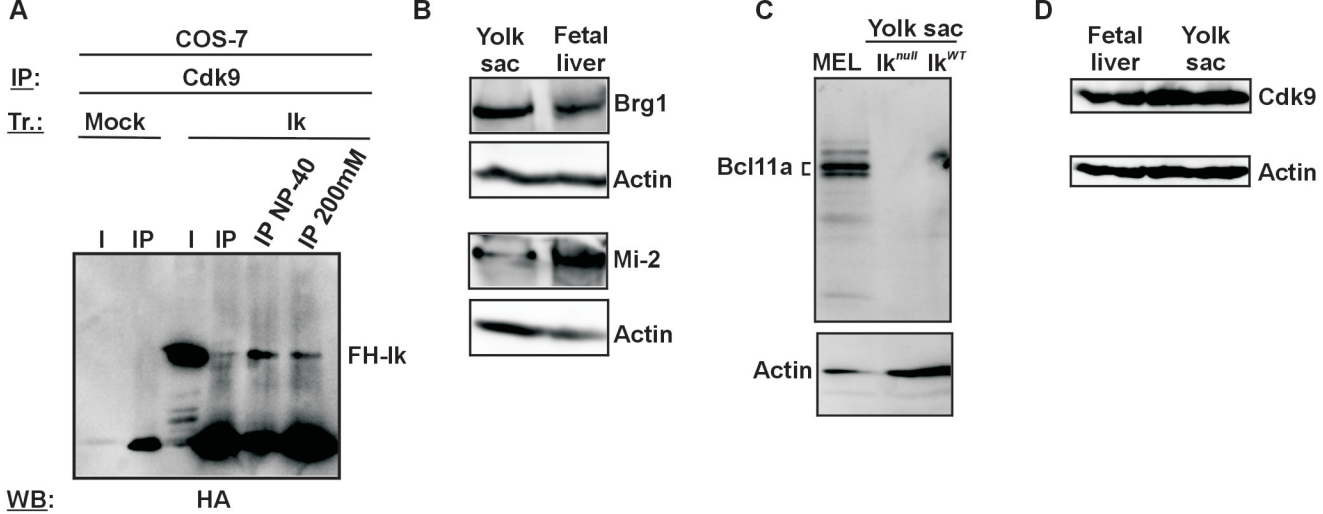
3C-β: CATGTCCCATCCAGGTGATG

Antibody	Application	Provider	Cat #
GATA-1	ChIP, WB, IP, IF	SantaCruz Biotechnology	N6
GATA-1	WB, IP	SantaCruz Biotechnology	M20
BRG1	ChIP, WB, IP	SantaCruz Biotechnology	H88
Ikaros	ChIP, WB	SantaCruz Biotechnology	E20
Ikaros	ChIP, WB	Abcam	ab26083
FOG-1	ChIP	SantaCruz Biotechnology	M20
Mi-2	ChIP, WB, IP	SantaCruz Biotechnology	H242
P45/NF-E2	ChIP	SantaCruz Biotechnology	C19
TBP	ChIP	SantaCruz Biotechnology	SI1
Pol II	ChIP	SantaCruz Biotechnology	N20
GATA-2	ChIP	SantaCruz Biotechnology	CG296
Cdk9	ChIP, WB, IP, IF	SantaCruz Biotechnology	C20
Ser2 phosphorylayed Pol II (PCTD)	ChIP	Covance	H5
Anti-FLAG-conjugated agarose beads	IP	Sigma	A2220
Anti-hemagglutinin (anti-HA)	WB, IF	SantaCruz Biotechnology	Y11, F7
Actin	WB	Labvision corporation	ACTN05
Mouse anti-HA	IF	SantaCruz Biotechnology	F7
Mouse anti-Ape1	IF	R&D Systems	MAB1044

ChIP: Chromatin Immunoprecipitation
WB: Western Blot
IP: Protein immunoprecipitation
IF: Immunofluorescence



Supplementary Fig. S2. Deconvolution immunofluorescence of COS-7 transfected cells: A) COS-7 cells expressing Flag/HA-Ikaros (Ikaros) or Gata-1 or empty vector (Mock) were stained with mouse antibodies to the HA tag and with rat antibodies to Gata-1; the secondary staining was carried out with TR-conjugated anti-mouse as well as FITC-conjugated anti-rat antibodies; single COS-7 cells are shown where Ikaros is detected as red signals and Gata-1 as green signals; **B)** COS-7 cells transfected with empty vector (Mock) were stained with mouse antibodies to the HA tag; the secondary staining was carried out with FITC-conjugated anti-mouse antibodies; a representative COS-7 cell is shown to demonstrate undetectable levels of green signals in Mock-transfected cells.



Supplementary Fig. S3. A) Ikaros-Cdk9 interaction: protein co-IP of total cell lysates prepared from COS-7 cells transfected (Tr) with empty vector (Mock) or Flag/HA-Ikaros Ikaros (FH-Ik); cell lysates were immunoprecipitated with Cdk9 antibodies or isotype-matched Ig (Ig) and WB were carried out with anti-HA antibodies; IP NP-40: lysis buffer containing 1% NP-40; IP 200mM: lysis buffer containing 200mM NaCl; **B, C, D) Representative examples of Western Blot (WB) assays performed on equal number of EryC:** total cell lysates were resolved on SDS-PAGE and immunoblots were probed with Brg1, Mi-2, Bcl11a, Cdk9 or Actin (used as a loading control) antibodies; Brg1, Mi2, Bcl11a, Cdk9 and Actin specific bands are indicated on the side of ech panel.