

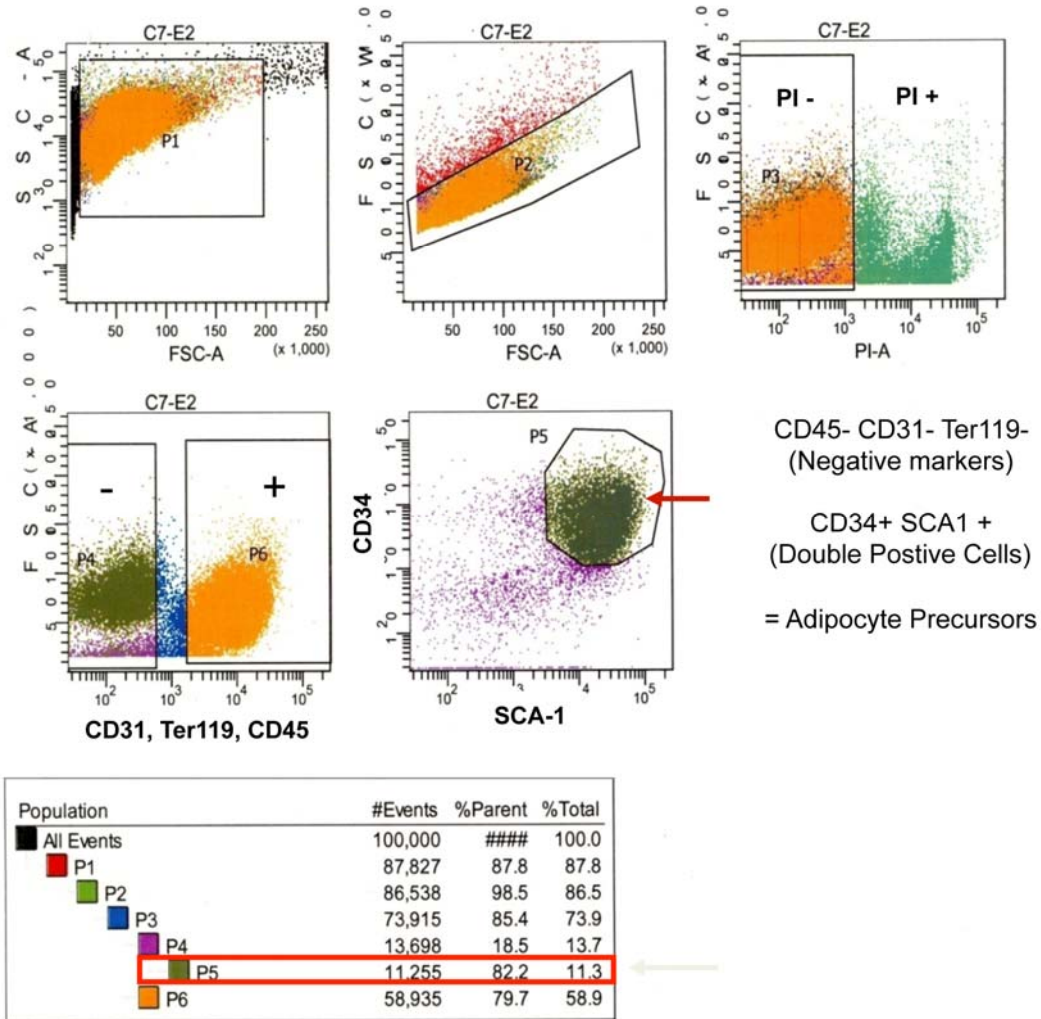
SUPPLEMENTARY DATA

Supplementary Table 1. Expression changes shown by microarray and quantitative PCR between APCs from visceral and subcutaneous fat.

	Microarray		Q-PCR	
Higher in SC	Fold change	P value	Fold change	P value
<i>Pparg</i>	3.2	0.0001	2.01	0.01
<i>Dkk2</i>	9.1	0.0004	6.77	0.01
<i>Stat5a</i>	2.9	0.0001	1.48	0.03
Higher in Vis				
<i>Gata2</i>	7.4	0.0005	6.78	0.02

SUPPLEMENTARY DATA

Supplementary Figure 1. Typical FACS sorting of Adipocyte Precursor Cells. SVF cells were resuspended and incubated for 5 min at 4C in 1 ml ACK buffer to lyse red blood cells (Lonza 10-548E). 10 ml of FACS buffer (PBS-FCS 2%) was added to the cell suspension to stop lysis before centrifugation at 800g. Pellet was resuspended in FACS buffer + blocking buffer (FC block CD16/CD32, BD Bioscience 553142), incubated during 10 min and centrifuged. Cells were incubated with the antibody mix during 15 min (Anti CD34-APC, 1:50 (eBioscience 51-0341-82), Anti Sca1-PE, 1:400 (BD Bioscience 553108), Anti Ter119-PECy7, 1:100 (BD Bioscience 557853), Anti CD45-PECy7, 1:100 (eBioscience 25-0451-81), Anti CD31-PECy7, 1:100 (Biolegend 102418)), centrifuged, resuspended in FACS buffer containing propidium iodide and sorted using the Aria flow cytometer (BD Biosciences). SVF cells were selected based on their size and granularity to remove debris and duplets. Alive cells were selected based on PI negative labelling. Cells positive for any of the markers CD31, Ter119 and CD45 were separated and considered as the “other SVF”. On the negative population, double positive cells for CD34 and SCA1 were obtained and considered as the adipocite precursors population.



Supplementary Figure 2. Most differentially expressed genes in APCs from Different Depots. Red= High expression. Blue= Low expression.

SUPPLEMENTARY DATA

Vns 1	Vns 2	Vns 3	Vns 4	Vns 5	SC 1	SC 2	SC 3	SC 4	SC 5	Gene Symbol	Gene Name
										<i>Tcf21</i>	transcription factor 21
										<i>Hp</i>	haptoglobin
										<i>Wt1</i>	Wilms tumor 1
										<i>Slc38a5</i>	solute carrier family 38, member 5
										<i>Ai314604</i>	expressed sequence AI314604
										<i>Megf10</i>	multiple EGF-like-domains 10
										<i>Itgb8</i>	integrin, beta 8
										<i>Actn3</i>	actinin, alpha 3
										<i>Gatm</i>	glycine amidinotransferase (L-arginine glycine amidinotransferase)
										<i>Anxa9</i>	annexin A9
										<i>Loc436089</i>	predicted gene 7455
										<i>Pah</i>	phenylalanine hydroxylase
										<i>Aldh1a2</i>	aldehyde dehydrogenase 1 family, member A2
										<i>Amph</i>	amphiphysin (Stiff-Man syndrome with breast cancer 128kDa autoantigen)
										<i>Dspq3</i>	dermatan sulfate proteoglycan 3
										<i>Vwa1</i>	von Willebrand factor A domain containing 1
										<i>Hmcn1</i>	hemacentin 1
										<i>Tcf23</i>	transcription factor 23
										<i>Clhc6</i>	chloride intracellular channel 6
										<i>Dapk2</i>	death-associated protein kinase 2
										<i>Bc054438</i>	transmembrane protein 204
										<i>Trps1</i>	trichorhinophalangeal syndrome 1
										<i>Hmgcs2</i>	3-hydroxy-3-methylglutaryl-Coenzyme A synthase 2 (mitochondrial)
										<i>Reep1</i>	receptor accessory protein 1
										<i>Gsta3</i>	glutathione S-transferase A3
										<i>2210020m01rik</i>	RIKEN cDNA 2210020M01 gene
										<i>Fndc5</i>	fibronectin type III domain containing 5
										<i>Ccbe1</i>	collagen and calcium binding EGF domains 1
										<i>Enpp6</i>	ectonucleotide pyrophosphatase/phosphodiesterase 6
										<i>Cilp</i>	cartilage intermediate layer protein, nucleotide pyrophosphohydrolase
										<i>Agt</i>	angiotensinogen (serpin peptidase inhibitor, clade A, member 8)
										<i>Ggta1</i>	glycoprotein, alpha-galactosyltransferase 1
										<i>Rspo1</i>	R-spondin homolog (Xenopus laevis)
										<i>Hrsp12</i>	heat-responsive protein 12
										<i>Zfp365</i>	zinc finger protein 365
										<i>Fxyd5</i>	FXYD domain containing ion transport regulator 5
										<i>Vegfc</i>	vascular endothelial growth factor C
										<i>6430550h21rik</i>	family with sequence similarity 70, member A
										<i>Au040377</i>	EGF-like, fibronectin type III and laminin G domains
										<i>Psat1</i>	phosphoserine aminotransferase 1
										<i>Akr1c13</i>	aldo-keto reductase family 1, member C13
										<i>Mrv1</i>	murine retrovirus integration site 1 homolog
										<i>Avpr1a</i>	arginine vasopressin receptor 1A
										<i>Sh3bgr</i>	SH3 domain binding glutamic acid-rich protein
										<i>Tgm2</i>	transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase)
										<i>Atp1a2</i>	ATPase, Na ⁺ /K ⁺ transporting, alpha 2 (+) polypeptide
										<i>Eva1</i>	epithelial V-like antigen 1
										<i>Col8a2</i>	collagen, type VIII, alpha 2
										<i>Tytl1 /// taf1</i>	tweety homolog 1 (Drosophila) /// TAF1 RNA polymerase II, TATA box binding protein (TBP)-associated factor
										<i>Hoxa5</i>	homeobox A5
										<i>Lhx8</i>	LIM homeobox 8
										<i>Shox2</i>	short stature homeobox 2
										<i>Tbx15</i>	T-box 15
										<i>Il1r2</i>	interleukin 1 receptor, type II
										<i>Mlana</i>	melan-A
										<i>Mmp3</i>	matrix metalloproteinase 3 (stromelysin 1, progelatinase)
										<i>Akr1c18</i>	aldo-keto reductase family 1, member C18
										<i>Pcdh20</i>	protocadherin 20
										<i>Cdh9</i>	cadherin 9, type 2 (T1-cadherin)
										<i>Wnt2</i>	wingless-type MM IV integration site family member 2
										<i>Tmeff1</i>	transmembrane protein with EGF-like and two follistatin-like domains 1
										<i>Dkk2</i>	dickkopf homolog 2 (Xenopus laevis)
										<i>H2-q10</i>	histocompatibility 2, Q region locus 10
										<i>Prkg2</i>	protein kinase, cGMP-dependent, type II
										<i>Mab21l1</i>	mab-21-like 1 (C. elegans)
										<i>Adh7</i>	alcohol dehydrogenase 7 (class IV), mu or sigma polypeptide
										<i>Hoxc10</i>	homeobox C10
										<i>Crispld1</i>	cysteine-rich secretory protein LCCL domain containing 1
										<i>Dmrt2</i>	doublesex and mab-3 related transcription factor 2
										<i>Cxcl9</i>	chemokine (C-X-C motif) ligand 9
										<i>4930517k11rik</i>	ribosomal protein L39-like
										<i>Nrf3</i>	neurotrophin 3
										<i>1110014f24rik</i>	dermokine
										<i>Bc065085</i>	family with sequence similarity 167, member A
										<i>Krt1-5</i>	keratin 36
										<i>Rab38</i>	RAB38, member RAS oncogene family
										<i>Irx5</i>	iroquois homeobox protein 5
										<i>Zfx4</i>	zinc finger homeodomain 4
										<i>Gpr126</i>	G protein-coupled receptor 126
										<i>Abcc9</i>	ATP-binding cassette, sub-family C (CFTR/MRP), member 9
										<i>Cldn10</i>	claudin 10
										<i>Aix3</i>	aristales-like homeobox 3
										<i>Prq4</i>	proteoglycan 4
										<i>Usp18</i>	ubiquitin specific peptidase 18
										<i>Cxcl14</i>	chemokine (C-X-C motif) ligand 14
										<i>Emb</i>	embigin homolog (mouse)
										<i>Mme</i>	membrane metallo-endopeptidase (neutral endopeptidase, enkephalinase)
										<i>Dennd2c</i>	DENN/MADD domain containing 2C
										<i>Mycoc</i>	myocilin, trabecular meshwork inducible glucocorticoid response
										<i>Thbs2</i>	thrombospondin 2
										<i>Irx3</i>	iroquois homeobox protein 3
										<i>9030623c06rik</i>	keratin 20
										<i>Rorb</i>	RAR-related orphan receptor B
										<i>Ccl8</i>	chemokine (C-C motif) ligand 8
										<i>Ayl1</i>	acyltransferase like 1
										<i>Cd24</i>	CD24 molecule
										<i>Kif21a</i>	kinesin family member 21A
										<i>Tgtp</i>	T-cell specific GTPase 1
										<i>Car8 /// loc676792</i>	carbonic anhydrase 8
										<i>Ccdc3</i>	coiled-coil domain containing 3