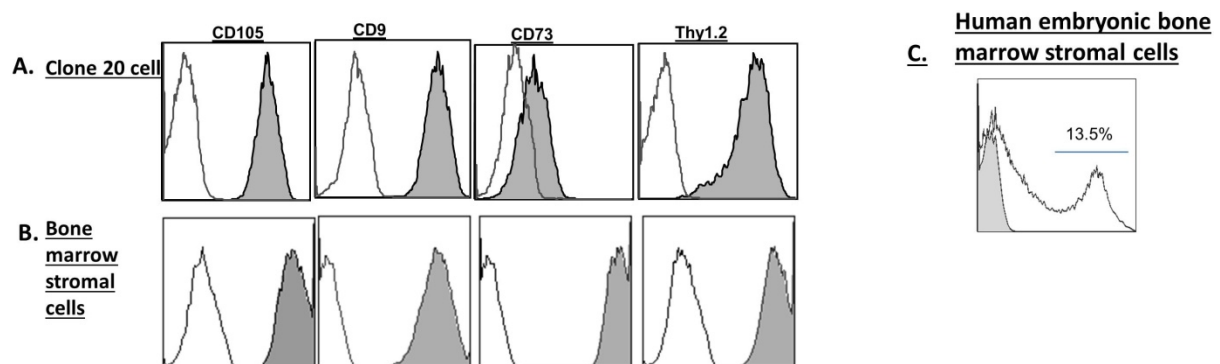
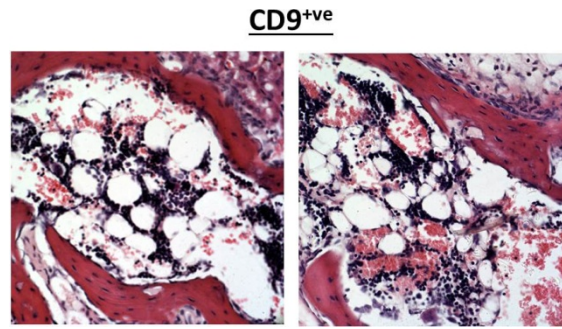


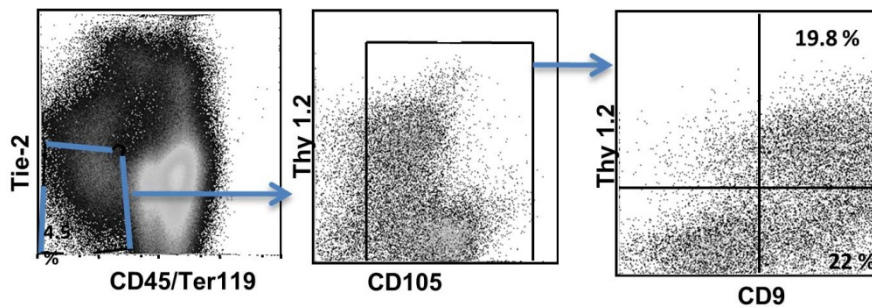
**Figure S1:** Markers expressed on CD105+ve cells at E16.5. Flow plots of mouse embryonic limb suspensions at E16.5 stained with anti-CD45, anti-Ter119, anti-Tie2, anti-CD105, and test antibody. The flow plots are pre-gated on CD45-veTer119-veTie2-veCD105+ve cells. The data is representative of two individual experiments.



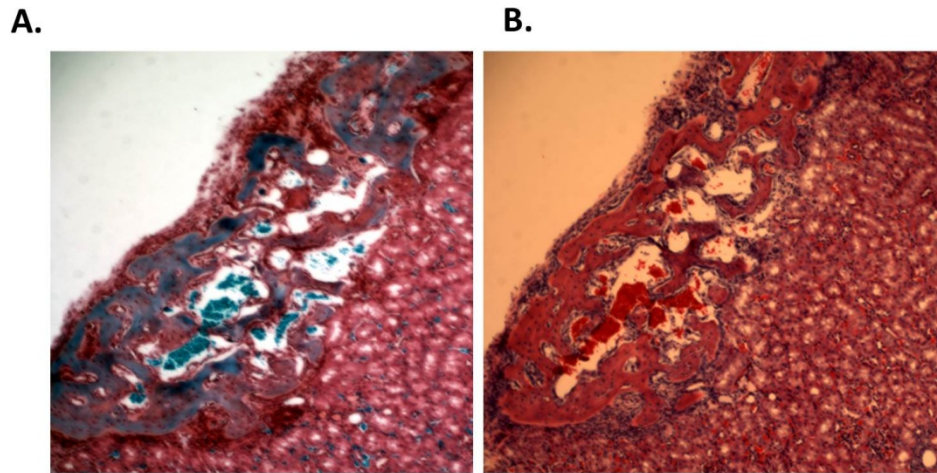
**Figure S2:** Expression of designated cell surface markers on cells from a transformed osteoblast clone, clone 20 (A) and human bone marrow stromal cells (B) and human bone marrow stromal cells isolated from femur of 19 week old embryos. (C). The unfilled plot in panel A and B and the filled histogram in panel C show the staining with isotype control.



**Figure S3:** Haematoxylin and eosin staining of kidney sections transplanted with 20,000 sorted E16.5 CD9+ve cells. Kidneys were harvested 6 weeks post cell transfer.



**Figure S4:** CD9+ve cells are present in adult mice. Femurs from 10 week old mice were digested with collagenase and dispase after flushing out the bone marrow and the cells were stained with anti-CD45, anti-Ter119, anti-Tie2, anti-CD105, anti-Thy1.2 and anti-CD9. The dot plot on the right is pre-gated on Tie2-ve CD45-veTer119-ve CD105+ve cells.



**Figure S5:** Safranin O (A) and H & E (B) stained section of kidney transplanted with 20,000 sorted CD9+ve Thy1.2-ve cells. Kidneys were harvested 16 days post cell transfer.

**Table S1:** The number of transplants undertaken for each population of cells and the number of transplants that generated bone with/without marrow.

	CD9+Thy1.2-		CD9+Thy1.2+		CD9+CD73+Thy1.2- (OCP1)		CD9+CD73-Thy1.2- (OCP2)		CD9+CD73-Thy1.2+ (OCP3)		CD9+CD73-Thy1.2+ (OCP4)	
	Bone	marrow	Bone	marrow	Bone	marrow	Bone	marrow	Bone	marrow	Bone	marrow
16 days	3/3	1/3	1/2	0/2								
4 weeks	2/2	1/2	2/2	0/2								
4.5 weeks	2/2	2/2	2/2	0/2								
6 weeks	6/6	6/6	6/6	0/6	8/8	8/8	7/7	6/7	7/7	1/7	0/8	0/8
8 weeks	8/8	8/8	3/3	0/3								