	EntrezGene ID	Full Name	MGI symbol	CM expression	CF expression	CF/CM	Notes (function, tissue expression, mutant phenotype)
Cardiac reprogramming factors	Mef2c	myocyte enhancer factor 2C	NM_001170537	11.7793	6.54233	0.5554	transcription factor; heart; homozygote death in embryo cardiac abnormalities
			NM_025282	3.93032	2.03041	0.5166	
	Gata4	GATA binding protein 4	NM_008092	50.1872	43.4999	0.8668	transcription factor; heart; homozygote null mutation exhibit defects in ventral morphogenesis, primitive heart tube and foregut and develop partially outside of yolk sac, death by midgestation
	Tbx5	T-box 5	NM_011537	7.14428	0.569986	0.0798	transcription factor; heart; heterozygote null exhibit perinatal lethality and forelimb and heart malformations, homozygote null exhibit growth arrest and die from severe heart defects
	Tnnt2	troponin T2, cardiac	NM_001130174	20.3754	1.09994	0.0540	tropomyosin binding subunit; heart, skeletal muscle, vertebral axis musculature; homozygote null exhibit embryonic lethality and abnormal development, homozygote with missing lysine at position 210 exhibit dilated cardiomyopathy
			NM_001130175	9.28032	1.80206	0.1942	
			NM_001130176	0	0	#DIV/0!	
			NM_001130177	439.651	35.5559	0.0809	
			NM_001130178	363.129	29.7198	0.0818	
			NM_001130179	35.6026	3.05964	0.0859	
			NM_001130180	0	0	#DIV/0!	
			NM_001130181	43.1253	3.17644	0.0737	
			NM_011619	2670.45	226.999	0.0850	
	Ryr2	ryanodine receptor 2, cardiac	NM_023868	44.4379	2.45445	0.0552	calcium receptor; heart; homozygote null exhibit embryonic lethality and adnormal cardiomyocyte morphology, homozygote with phosphorylation defective exhibit decreased susceptibility to myocardial infarction-induced heart failure
	Myh6	myosin, heavy polypeptide 6, cardiac muscle, alpha	NM_001164171	0	6.07031	#DIV/0!	alpha heavy chain subunit for myosin; vertebral axis musculature, heart, diaphragm, eye; homozygote knock-out exhibit embryonic lethality with heart defects, heterozygote exhibit cardiac myofibrilalr disarray, cardiac dysfunction and fibrosis, cardiomyopathy
			NM_010856	0	99.3557	#DIV/0!	
	Nppa	natriuretic peptide type A	NM_008725	3011.67	52.4805	0.0174	vasodilator; heart; homozygotes are hypertensive, salt-sensitive hypertension, abnormal pulmonary vascular remodeling
	Pln	phospholamban	NM_001141927	17.7235	1.58248	0.0893	calcium ion pump regulator; heart; homozygotes null exhibit enhanced myocardial function, overtly normal and fertile
			NM_023129	416.148	33.2151	0.0798	
Fibroblast markers	Col1a1	collagen, type I, alpha 1	NM_007742	145.692	1261.01	8.6553	pro-alpha1 chain for type 1 collagen; femur, lung, eye; homozygotes show impaired bone formation and fragility, osteoporosis, dermal fibrosis, impaired uterine postpartum involution, aortic dissection
	Col1a2	collagen, type I, alpha 2	NM_007743	167.323	1213.14	7.2503	pro-alpha2 chain for type I collagen; heart, bone; homozygotes show reduced body size, fractured/deformed bones, droopy wrists, abnormal gait
	Col3a1	collagen, type III, alpha 1	NM_009930	255.265	0	0.0000	pro-alpha1 chain for type III collagen; brain, gland; homozygotes die within 48 hours after birth, surviving show reduced body size, skin lesions, enlarged intestines, heterozygotes show tight skin
	Postn	periostin, osteoblast specific factor	NM_001198765	159.716	0	0.0000	integrin ligand; heart, dermis; homozygotes null show teeth abnormalities
			NM_001198766	53.6912	0	0.0000	
			NM_015784	165.802	0	0.0000	
	S100a4	S100 calcium binding protein A4	NM_011311	20.1413	44.5051	2.2096	regulation of cellular processes; brain, eye; homozygote show tumor formation, embryonic lethality
	Thy1	thymus cell antigen 1, theta	NM_009382	9.72583	127.806	13.1409	immunoglobulin; brain, dermis, vibrissa(whiskers); homozygote null are viable, fertile and little adnormalities
	Vim	vimentin	NM_011701	2027.59	0	0.0000	type III intermediate filament; brain; homozygotes null show impaired motor coordination, underdeveloped brain
	Eln	elastin	NM_007925	798.513	1103.29	1.3817	elastin; lung, skeleton; homozygotes null die early, defective airway development
	Pdgfra	platelet derived growth factor receptor, alpha polypeptide	NM_001083316	0.806032	6.60161	8.1903	growth factor; heart; homozygotes null show impaired testis formation, thoracic skeletal defects
			NM_011058	3.91241	46.4887	11.8824	
	Lox	lysyl oxidase	NM_010728	15.7785	47.832	3.0315	extracellular copper enzyme; homozygotes show aneurysms, cardiovascular dysfunction, abnormal development in respiratory system
	Ddr2	discoidin domain receptor family, member 2	NM_022563	4.03508	23.323	5.7801	receptor tyrosine kinase; stomach, mandible, maxilla; homozygotes null show dwarfism
	Fgf17	fibroblast growth factor 17	NM_008004	0.146433	0.647443	4.4214	fibroblast growth factor; brain, liver; homozygotes show tissue loss in brain but appear normal and healthy
	Fgf20	fibroblast growth factor 20	NM_030610	0.0221892	0.239664	10.8009	fibroblast growth factor; heart; homozygotes knock-out show impaired hearing
	Fgfr4	fibroblast growth factor receptor 4	NM_008011	0.214097	0.598013	2.7932	fibroblast growth factor receptor, cluster of differentiation; skeletal muscles; homozygotes mutant are viable and heathly
Fibroblast-enriched transcription factors	Tcf21	transcription factor 21	NM_011545	27.1981	426.376	15.6767	transcription factor; gonad, heart; homozygotes null show hypoplastic lungs, respiratory failure during birth, abnormal vasculature to kidneys, asplenic, sex reversal
	Sox9	SRY (sex determining region Y)-box 9	NM_011448	3.8431	25.6219	6.6670	transcription factor; gonad-testis; heterozygotes null/knock-out show hypoplasia, distorted skeletal structures, sex reversed
	Egr2	early growth response 2	NM_010118	6.37275	40.9063	6.4189	transcription factor; nervous system; homozygotes for targeted mutations exhibit absence of rhombomeres 3 and 5 of the hindbrain affecting axonal migration, disrupted myelination of Schwann cells, slow respiratory and jaw opening rhythms, skeletal abnormalities, and perinatal lethality
	Egr3	early growth response 3	NM_018781	5.17897	51.9793	10.0366	transcription factor; alimentary system, reproductive system; homozygotes null mutants exhibit partial postnatal lethality, sensory ataxia, resting tremors, blepharoptosis, scoliosis, muscle spindle agenesis, loss of myelinated proprioceptive neurons, and a defect in the strength of sensory-motor connections.
	Foxc2	forkhead box C2	NM_013519	7.32976	43.849	5.9823	transcription factor; cardiovascular system and skeletal system; homozygotes for targeted null mutations die perinatally or before with cardiac abnormalities and skeletal defects in the neurocranium and spine. Heterozygotes exhibit lymphatic vessel and lymph node hyperplasia, anterior segment defects, and distichiasis.
	Twist1	twist basic helix-loop-helix transcription factor 1	NM_011658	9.1558	47.7342	5.2135	transcription factor; mesenchyme, heart, central nervous system, female reproductive system; homozygous embyros have neural tube defects and die around E11. Heterozygous mutants are viable and exhibit features of human Saethre-Chotzen syndrome, including hindlimb polydactyly, craniofacial defects, long bone abnormalities, an abnormal gait and a small size.
	Twist2	twist basic helix-loop-helix transcription factor 2	NM_007855	2.68178	28.679	10.6940	transcription factor; skin, genitourinary system; deletion of this gene results in high postnatal lethality and progressive growth retardation is observed with adipose tissue deficiency, skin, hair and muscle abnormalities, as well as hematopoietic and lymphoid organ defects including the spleen, thymus, and liver.
	Msc	musculin	NM_010827	1.98787	79.7228	40.1046	transcription factor; mesenchyme; mice homozygous for a targeted mutation are obtained at predicted Mendelian ratios and exhibit no obvious phenotypic abnormalities.
	Egr1	early growth response 1	NM_007913	179.566	338.712	1.8863	transcription factor; urinary system, mesenchyme; homozygotes for targeted mutations are small and infertile due to pituitary defects. Mutants exhibit reductions in somatotropes and growth hormone content, and a lack of luteinizing hormone-beta expression. Ovaries lack luteinizing hormone receptors. Memory defects are also seen.
	Jdp2	Jun dimerization protein 2	NM_001205052	6.98907	5.57828	0.7981	transcription factor; skeletal system; central nervous system; mice homozygous for a null allele exhibit increased white adipose tissue differentiation, short tail, and enhanced would healing due to increased cell proliferation.
			NM_001205053	1.44307	13.5624	9.3983	
			NM_030887	23.8914	35.899	1.5026	
	Myc	myelocytomatosis oncogene	NM_001177352	92.3669	147.965	1.6019	transcription factor; skeletal system, mesenchyme; mutations affect growth and development of heart, pericardium, neural tube, vasculogenesis and erythropoeisis. Homozygous null mutants die by embryonic day 10.5. Heterozygotes have reduced body size and multiorgan hypoplasia; females have small litters.
			NM_001177353	33.9607	65.6106	1.9320	

	Ski	ski sarcoma viral oncogene homolog (avian)	NM_011385	58.948	89.7647	1.5228	transcription factor; homozygous null embryos die during late gestation and exhibit neural tube defects, cardiovascular defects, craniofacial anomalies, and reduced skeletal muscle mass. Haploinsufficient mice have an increased susceptibility to tumorigenesis.
	Klf3	Kruppel-like factor 3 (basic)	NM_008453	42.7881	64.6036	1.5098	transcription factor; cardiovascular system, genitourinary system, central nervous system; homozygous null mice display reduced viability, body size and white adipose tissue. Mice homozygous for a gene trap allele exhibit cardiac defects, reduced body size and abnormal red blood cells. Mice heterozygous for an ENU-induced allele exhibit lethality with heart defects.
	Xbp1	X-box binding protein 1	NM_001271730	8.23583	8.45557	1.0267	transcription factor; genitourinary system, sensory system, nervous system; homozygous mutants exhibit markedly impaired liver development resulting in severe anemia, necrosis of cardiac myocytes, morphological abnormalities of the neural tube, and fetal death around embryonic day 14.
			NM_013842	48.533	120.265	2.4780	
	Klf2	Kruppel-like factor 2 (lung)	NM_008452	58.655	142.908	2.4364	Kruppel-like transcription factor; facial bones, rib; homozygotes null show anemia, craniofacial malformations, impaired hematopoiesis