

Supplementary Table 1. Muscle genes on the array sorted into kinetic groups

Tadpole specific genes (ns-ns-down)

Accession number	Gene name	2 wk	6 wk	frog limb	NF62 tail
BC043995	actinin, alpha 1	NS	NS	0.49	2.85
BC046257	calponin 2	NS	NS	0.39	7.81
BC043808	calponin 3, acidic	NS	NS	0.25	2.02
X07068	AchR, gamma	NS	NS	0.12	NS
BC044316	endothelin receptor type A	NS	NS	0.54	2.53
BC041248	FK506 binding protein 1A, 12kDa	NS	NS	0.57	NS
AJ551272	mitogen-activated protein kinase 1	NS	NS	0.31	NS
BQ728062	myosin, heavy polypeptide 3	NS	NS	0.50	3.02
CB562518	nebulin	NS	NS	0.53	NS
CD302425	plectin 1	NS	NS	0.48	NS
BC045063	poly(A) binding protein	NS	NS	0.50	NS
AF274053	potassium channel	NS	NS	0.34	NS
CA982496	ring finger protein 28	NS	NS	0.42	NS
U25961	transcription factor 4	NS	NS	0.25	NS
X99701	utrophin (homologous to dystrophin)	NS	NS	0.40	NS
BG162206	YY1 associated factor 2	NS	NS	0.51	NS

Unchanged during development (ns-ns-ns)

CB207449	actin related protein 2/3 complex subunit 4	NS	NS	NS	1.69
BJ633933	actinin, alpha 2	NS	NS	NS	NS
CB565496	actinin, alpha 4	NS	NS	NS	NS
BC044065	ankyrin repeat domain 2	NS	NS	NS	0.62
CD328323	ATP-binding cassette	NS	NS	NS	NS
CD101506	calcium channel	NS	NS	NS	NS
AF212199	calpain 2	NS	NS	NS	NS
BU915316	cardiotrophin 1	NS	NS	NS	NS
U49258	cholecystokinin A receptor	NS	NS	NS	NS

BQ735962	collagen, type VIII, alpha 1	NS	NS	NS	NS
BC046265	dystrobrevin, alpha	NS	NS	NS	NS
CB563327	Fast troponin I	NS	NS	NS	NS
BG022984	fer-1-like 3, myoferlin (C. elegans)	NS	NS	NS	NS
BU904541	filamin B, beta	NS	NS	NS	NS
CD361626	flightless I homolog (Drosophila)	NS	NS	NS	NS
CF521918	glucan (1,4-alpha-), branching enzyme 1	NS	NS	NS	NS
M29857	insulin-like growth factor 1 (somatomedin C)	NS	NS	NS	NS
CA972353	integrin beta 1 binding protein 3	NS	NS	NS	NS
BJ068711	integrin, alpha 7	NS	NS	NS	NS
BX846527	kininogen	NS	NS	NS	NS
X13169	lamin A/C	NS	NS	NS	NS
BJ634323	myocyte enhancer factor 2A	NS	NS	NS	NS
CB197861	myomesin 1 (skelemin) 185kDa	NS	NS	NS	NS
CB563551	myomesin 2	NS	NS	NS	NS
CA791495	myosin IA	NS	NS	NS	NS
CB563516	myosin light chain 2	NS	NS	NS	NS
BG885146	myosin light chain kinase 2	NS	NS	NS	NS
BC041716	myosin, heavy polypeptide 4	NS	NS	NS	0.21
BJ083927	myosin, heavy polypeptide 7	NS	NS	NS	NS
CD256657	myosin, light polypeptide 6	NS	NS	NS	NS
BC054147	myosin, light polypeptide 7	NS	NS	NS	NS
BQ399543	myotubular myopathy 1	NS	NS	NS	NS
CB563823	myozenin 2	NS	NS	NS	NS
BI851040	nebulette	NS	NS	NS	NS
AW635944	pantothenate kinase 4	NS	NS	NS	0.65
BC048220	plectin 1	NS	NS	NS	NS
AF279245	potassium voltage-gated channel	NS	NS	NS	1.57
AJ009276	protein phosphatase 1	NS	NS	NS	NS
BG555613	Rho guanine nucleotide exchange factor	NS	NS	NS	NS
BU901771	sarcolemma associated protein	NS	NS	NS	NS

CD363026	sarcospan	NS	NS	NS	NS
AF279254	sine oculis homeobox homolog 1	NS	NS	NS	NS
BQ733036	smoothelin	NS	NS	NS	NS
BG347872	solute carrier family 6	NS	NS	NS	0.74
AJ009305	solute carrier family 25	NS	NS	NS	1.51
BJ629866	sorcini	NS	NS	NS	1.40
BC049289	spectrin repeat containing nuclear envelope 1	NS	NS	NS	NS
CD255549	titin-cap (telethonin)	NS	NS	NS	NS
BC043980	tropomyosin 3	NS	NS	NS	NS

Secondary candidate genes (ns-ns-up, ns-down-up)

CD328277	acetylcholinesterase	NS	NS	1.53	NS
CB561392	actin, alpha 2, smooth muscle, aorta	NS	NS	1.34	NS
CB564203	actin, alpha 3, skeletal muscle	NS	NS	1.70	NS
CB984321	Actin, alpha cardiac	NS	NS	1.80	NS
CB198477	adenylate kinase 1	NS	NS	3.53	0.28
BC044021	adenylosuccinate lyase	NS	NS	3.75	0.18
BC043896	adenylosuccinate synthase	NS	NS	1.43	NS
BG811684	adenylosuccinate synthase like 1	NS	NS	1.37	0.5
AJ009306	aldolase A, fructose-bisphosphate	NS	NS	12.79	0.23
BG159998	alpha fast tropomyosin	NS	NS	5.05	NS
BX848751	amylo-1, 6-glucosidase, 4-alpha-glucanotransferase	NS	NS	7.56	0.37
AF527799	blood vessel epicardial substance	NS	NS	2.52	0.31
AF421880	calcium channel	NS	NS	8.72	0.28
CA983434	CD9 antigen (p24)	NS	NS	1.44	2.63
U04618	cholinergic receptor, nicotinic, beta polypeptide 1	NS	NS	1.35	NS
BC045123	creatine kinase, mitochondrial 1 (ubiquitous)	NS	NS	2.27	NS
BC046260	dystroglycan 1	NS	NS	2.61	0.42
BC054240	enigma (LIM domain protein)	NS	NS	30.78	0.45
BC054279	eukaryotic translation elongation factor	NS	NS	338.77	4.95
CB201255	four and a half LIM domains 1	NS	NS	4.09	NS

CA791063	Fukuyama type congenital muscular dystrophy	NS	NS	1.46	NS
BC045001	guanidinoacetate N-methyltransferase	NS	NS	3.78	0.10
BC045015	lactate dehydrogenase A	NS	NS	10.66	0.20
CB200260	LIM protein	NS	NS	2.54	NS
CD328660	mitogen-activated protein kinase 12	NS	NS	1.50	NS
S84990	MRF4	NS	NS	1.44	NS
BJ081157	myocilin	NS	NS	1.60	NS
X16106	myogenic factor 3	NS	NS	2.95	0.41
BG347956	myosin light chain 1v	NS	NS	5.89	0.41
CB943928	myosin light chain 1, skeletal muscle isoform	NS	NS	1.42	NS
BX852383	myosin, heavy polypeptide 11, smooth muscle	NS	NS	1.45	NS
BQ731714	myosin, heavy polypeptide 2, adult	NS	NS	15.42	0.59
CB561643	myosin VA (heavy polypeptide 12, myosin)	NS	NS	2.38	NS
CB941908	obscurin	NS	NS	4.48	NS
BC045100	phosphofructokinase, muscle	NS	0.61	23.59	0.16
BC043781	phosphoglycerate kinase 1	NS	NS	9.21	0.11
BX855349	potassium voltage-gated channel	NS	NS	1.35	NS
M94258	potassium voltage-gated channel	NS	NS	1.30	0.73
BC044112	pyruvate dehydrogenase kinase	NS	NS	4.22	NS
BC044007	pyruvate kinase, muscle	NS	NS	15.08	0.1
CB563362	ribosomal protein L3-like	NS	NS	1.57	0.75
CB206117	sarcoglycan, beta	NS	NS	1.57	0.50
X90838	solute carrier family 8	NS	NS	1.31	NS
BG018761	titin immunoglobulin domain protein	NS	NS	1.32	NS
CB562862	troponin I, skeletal, slow	NS	NS	1.39	NS
AF467919	troponin T2, cardiac	NS	NS	1.29	0.74
AY114144	troponin T3, skeletal, fast	NS	NS	32.34	0.12
BC060013	UDP-glucose pyrophosphorylase 2	NS	NS	2.76	0.33

Genes unaffected by TRDN but TH responsive (ns-up-up and ns-down-down)

BC045043	actin related protein 2/3 complex	NS	2.30	1.87	3.29
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CB560852	smooth muscle actin	NS	2.66	4.47	2.45
BC045218	aldolase C, fructose-bisphosphate	NS	2.01	2.36	NS
AB061521	calpain 1, (mu/I) large subunit	NS	0.43	0.52	NS
BC060387	calponin 1, basic, smooth muscle	NS	4.14	3.47	NS
X16842	desmin	NS	2.05	2.23	0.22
X99700	dystrophin	NS	1.91	2.16	NS
BC054169	enolase 1, (alpha)	NS	1.71	2.77	0.3
BC042343	connexin 45	NS	0.69	0.29	2.11
BC043951	kelch repeat and BTBdomain containing 10	NS	3.00	2.60	0.34
BU910446	msh homeo box homolog 1 (Drosophila)	NS	0.19	0.09	NS
BJ083441	myf-5	NS	7.11	17.55	NS
AF532600	myocardin-related transcription factor B	NS	0.73	0.51	4.69
AJ009303	myogenic factor 5	NS	0.50	0.35	NS
BC054315	myosin binding protein H	NS	1.62	4.30	0.12
BC042231	myosin, light polypeptide 9	NS	2.54	2.83	2.23
AF257236	poly(A) binding protein, nuclear 1	NS	0.70	0.51	NS
U89265	potassium voltage-gated channel	NS	0.27	0.20	NS
CD254362	prostaglandin D2 synthase 21kDa	NS	1.85	2.07	NS
AF037073	Rho-associated protein kinase 2	NS	1.50	1.44	NS
CB201454	ring finger protein 30	NS	2.53	2.59	2.24
BX847353	S100 calcium binding protein A14	NS	1.50	1.85	2.86
AF343894	small muscle protein, X-linked	NS	1.87	6.23	0.35
BX855266	solute carrier family 25	NS	1.54	16.97	0.32
BC044694	tafazzin	NS	0.58	0.23	2.19
BC043885	titin	NS	1.70	2.17	NS
BC046722	transgelin 2	NS	1.75	1.42	1.81

Primary candidate genes (down-down-up and down-ns-up)

BC046739	actin, alpha 1, skeletal muscle	0.25	0.24	22.44	0.11
BC046852	amphiphysin II	0.49	NS	1.91	0.44

BC044063	Ca ⁺⁺ transporting ATPase	0.29	0.57	7.07	NS
BC046947	calsequestrin 1	0.17	0.39	69.63	0.27
BC045081	cholinergic receptor, nicotinic, alpha	0.52	0.68	1.54	0.48
BC043628	cholinergic receptor, nicotinic, delta	0.58	NS	2.36	0.21
U19612	cholinergic receptor, nicotinic, epsilon	0.53	NS	4.63	0.31
CB945142	creatine kinase B	0.52	NS	24.70	0.33
BC042249	creatine kinase M, muscle	0.29	NS	8.61	NS
BX847508	cytochrome c oxidase assembly protein	0.39	NS	10.53	0.23
BC045082	enolase 3, (beta, muscle)	0.27	0.31	125.57	0.07
BC042340	LIM domain binding 3 (ZASP)	0.48	NS	12.48	0.33
BC041221	LIM domain protein	0.59	NS	14.71	0.1
CD255184	myosin heavy chain, E3	0.17	0.64	5.11	0.37
BC054224	myozenin 1	0.34	NS	74.83	0.23
BC043842	phosphoglycerate mutase 2 (muscle)	0.13	0.28	56.91	0.03
BC043830	phosphorylase kinase, gamma 1 (muscle)	0.35	0.40	16.45	0.36
BX851926	ryanodine receptor 3	0.43	NS	4.85	0.37
BJ029671	sirtuin	0.57	0.62	25.62	0.22
CB984281	solute carrier family 25	0.68	NS	5.90	0.24
M87307	tropomyosin 2 (beta)	0.43	NS	14.20	0.36
AB003080	troponin C, slow	0.17	0.09	3.28	NS
BX850052	troponin fast	0.35	NS	8.48	NS

Genes that follows TH concentration (ns-up-ns and ns-down-ns)

CD327588	cartilage associated protein	NS	1.67	NS	NS
CD302358	collagen, type VI, alpha 3	NS	2.03	NS	NS
CA971861	cysteine and glycine-rich protein 2	NS	1.67	NS	1.83
BJ068403	muscle RAS oncogene homolog	NS	1.36	0.53	2.19
AY046532	myogenin	NS	2.11	0.09	NS
AF364821	myosin light chain 1av (MLC1av)	NS	0.72	NS	NS
U71076	potassium voltage-gated channel	NS	1.57	0.26	NS

The numbers are ratio of the log intensity of three experimental hybridization values (2 wk and 6 wk transgenic limbs and control frog limbs) relative to the control NF55 tadpole limb or NF62 tail compared to NF54 tail.
NS, not significant.