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Supplementary Table 1. Genes implicated in behavioral pain-related states via antisense knockdown or RNA interference.

Phenotype	Gene Symbol	Gene Name	Protein Acronym
Acute/Tonic Pain	*Avpr2*	arginine vasopressin receptor 2	V2R
	Bdkrb1	bradykinin receptor, beta 1	B1R
	Bdkrb2	bradykinin receptor, beta 2	B2R
	Cacng2	calcium channel, voltage-dependent, gamma subunit 2	stargazin
	Chat	choline acetyltransferase	ChAT
	Chrna4	cholinergic receptor, nicotinic, alpha polypeptide 4	α4-AChR
	Fos	FBJ osteosarcoma oncogene	*c*-fos
	Gnat1	guanine nucleotide binding protein, alpha transducing 1	Ga1
	Gnat2	guanine nucleotide binding protein, alpha transducing 2	Ga2
	Grin1	glutamate receptor, ionotropic, NMDA1 (zeta 1)	NR1
	Grin2a	glutamate receptor, ionotropic, NMDA2A (epsilon 1)	NR2A
	Grm1	glutamate receptor, metabotropic 1	mGluR1
	Htr1a	5-Hydroxytryptamine (serotonin) receptor 1A	5-HTR1A
	Mapk14	mitogen-activated protein kinase 14	p38a
	Mycbp2	MYC binding protein 2	Pam
	Npff	neuropeptide FF-amide peptide precursor	NPFF
	Oprl1	opioid-receptor-like 1	ORL1
	Ptges3	prostaglandin E synthase 3 (cytosolic)	cPGES
	Slc1a2	solute carrier family 1, member 2	GLT-1
	Slc1a3	solute carrier family 1, member 3	GLAST
	Syn2	synapsin II	synapsin II
	Tac1	tachykinin 1	NK1
	Trpv4	transient receptor potential cation channel, subfamily V, member 4	TRPV4

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Inflammatory Pain	*Accn2*	amiloride-sensitive cation channel 2, neuronal	ASIC1
	Bdnf	brain-derived neurotrophic factor	BDNF
	Cacna1b	calcium channel, voltage-dependent, N type, alpha 1B subunit	Cav2.2
	Calca	calcitonin/calcitonin-related polypeptide, alpha	CGRP
	Creb1	cAMP responsive element binding protein 1	CREB
	Dlg2	discs, large homolog 2 (Drosophila)	PSD93
	Fos	FBJ osteosarcoma oncogene	*c*-fos
	Glra3	glycine receptor, alpha 3 subunit	GlyRα3
	Grin1	glutamate receptor, ionotropic, NMDA1 (zeta 1)	NR1
	Grm1	glutamate receptor, metabotropic 1	mGluR1
	Il6st	interleukin 6 signal transducer	gp130
	Itga1	integrin alpha 1	α1-integrin
	Itga3	integrin alpha 3	α3-integrin
	Itgb1	integrin beta 1 (fibronectin receptor beta)	β1-integrin
	Lpar1	lysophosphatidic acid receptor 1	vzg-1
	Mapk7	mitogen-activated protein kinase 7	ERK5
	Ntrk1	neurotrophic tyrosine kinase, receptor, type 1	TrkA
	Ntrk2	neurotrophin tyrosine kinase, receptor, type 2	TrkB
	P2rx3	purinergic receptor P2X, ligand-gated ion channel, 3	P2X3
	Plcb3	phospholipase C, beta 3	PLCβ3
	Prkce	protein kinase C, epsilon	PKCε
	Prkd1	protein kinase D1	PKD1
	Ptger4	prostaglandin E receptor 4 (subtype EP4)	EP4
	Ptges3	prostaglandin E synthase 3 (cytosolic)	cPGES
	Ptgfrn	prostaglandin F2 receptor negative regulator	PGF2α
	Scn10a	sodium channel, voltage-gated, type X, alpha	Nav1.8
	Scn9a	sodium channel, voltage-gated, type IX, alpha	Nav1.7
	Sgk1	serum/glucocorticoid regulated kinase 1	Sgk1
	Slc12a5	solute carrier family 12, member 5	KCC2
	Trpv4	transient receptor potential cation channel, subfamily V, member 4	TRPV4

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Neuropathic Pain	*Arrb1*	arrestin, beta 1	β1-arrestin
	Bloc1s2	biogenesis of lysosome-related organelles complex-1, subunit 2	RSEP1
	Cacna1b	calcium channel, voltage-dependent, N type, alpha 1B subunit	Cav2.2
	Cacna1h	calcium channel, voltage-dependent, T type, alpha 1H subunit	Cav3.2
	Cacna1i	calcium channel, voltage-dependent, T type, alpha 1I subunit	Cav3.3
	Cacna2d1	calcium channel, voltage-dependent, alpha2/delta subunit 1	α2δ1
	Chrna5	cholinergic receptor, nicotinic, alpha polypeptide 5	α5-AChR
	Creb1	cAMP responsive element binding protein 1	CREB
	Dlg4	discs, large homolog 4 (Drosophila)	PSD95
	Epha4	Eph receptor A4	EphA4
	Efnb2	ephrin B2	ephrin B2
	Gfra1	glial cell line derived neurotrophic factor family receptor alpha 1	GFRa1
	Grm1	glutamate receptor, metabotropic 1	mGluR1
	Htr1a	5-Hydroxytryptamine (serotonin) receptor 1A	5-HTR1A
	Jun	Jun oncogene	*c*-jun
	Kcnc4	potassium voltage gated channel, Shaw-related subfamily, member 4	Kv3.4
	Kcnd3	potassium voltage gated channel, Shal-related subfamily, member 3	Kv4.3
	Mapk1	mitogen-activated protein kinase 1	ERK
	Mapk7	mitogen-activated protein kinase 7	ERK5
	Nr2c2	nuclear receptor subfamily 2, group C, member 2	TAK1
	Nr3c1	nuclear receptor subfamily 3, group C, member 1	GR
	P2rx3	purinergic receptor P2X, ligand-gated ion channel, 3	P2X3
	P2rx4	purinergic receptor P2X, ligand-gated ion channel 4	P2X4
	P2ry12	purinergic receptor P2Y, G-protein coupled 12	P2Y12
	Rela	v-rel reticuloendotheliosis viral oncogene homolog A (avian)	p65
	Scn10a	sodium channel, voltage-gated, type X, alpha	Nav1.8
	Scn3a	sodium channel, voltage-gated, type III, alpha	Nav1.3
	Tlr3	toll-like receptor 3	TLR3
	Tlr4	toll-like receptor 4	TLR4
	Trpa1	transient receptor potential cation channel, subfamily A, member 1	TRPA1
	Trpm8	transient receptor potential cation channel, subfamily M, member 8	TRPM8
	Trpv1	transient receptor potential cation channel, subfamily V, member 1	TRPV1
	Trpv4	transient receptor potential cation channel, subfamily V, member 4	TRPV4

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Analgesia	*Adra2a*	adrenergic receptor, alpha 2a	α2a-AR
	Adra2c	adrenergic receptor, alpha 2c	α2c-AR
	Chrm1	cholinergic receptor, muscarinic 1, CNS	M1
	Chrna4	cholinergic receptor, nicotinic, alpha polypeptide 4	α4-AChR
	Cnr1	cannabinoid receptor 1 (brain)	CB1
	Drd2	dopamine receptor 2	D2
	Galr1	galanin receptor 1	Galnr1
	Gfra1	glial cell line derived neurotrophic factor family receptor alpha 1	GFRα1
	Gnao1	guanine nucleotide binding protein, alpha O	Go
	Gnat1	guanine nucleotide binding protein, alpha transducing 1	Gα1
	Gnat2	guanine nucleotide binding protein, alpha transducing 2	Gα2
	Gnat3	guanine nucleotide binding protein, alpha transducing 3	Gα3
	Gnaz	guanine nucleotide binding protein, alpha z subunit	Gz
	Gnb5	guanine nucleotide binding protein (G protein), beta 5	Gβ5
	Gng2	guanine nucleotide binding protein (G protein), gamma 2	Gγ2
	Grin1	glutamate receptor, ionotropic, NMDA1 (zeta 1)	NR1
	Htr3	5-hydroxytryptamine (serotonin) receptor 3	5-HT3
	Itpr1	inositol 1,4,5-triphophate receptor 1	IP3R1
	Itpr2	inositol 1,4,5-triphophate receptor 2	IP3R2
	Itpr3	inositol 1,4,5-triphophate receptor 3	IP3R3
	Kcna1	potassium voltage-gated channel, shaker-related subfamily, member 1	Kv1.1
	Ncam1	neural cell adhesion molecule 1	NCAM
	Nos1	nitric oxide synthase 1, neuronal	nNOS
	Oprd1	opioid receptor, delta 1	DOR
	Oprk1	opioid receptor, kappa 1	KOR
	Oprl1	opioid-receptor-like 1	ORL1
	Oprm1	opioid receptor, mu 1	MOR
	Oprs	opioid receptor, sigma 1	σ receptor
	P2rx3	purinergic receptor P2X, ligand-gated ion channel, 3	P2X3
	Plcb1	phospholipase C, beta 1	PLCβ1
	Ppp2ca	protein phosphatase 2, catalytic subunit, alpha isoform	PP2A
	Ppp5c	protein phosphatase 5, catalytic subunit	PP5
	Rgs9	regulator of G-protein signaling 9	Rgs9-2

Ryr1	ryanodine receptor 1	RYR1
Ryr3	ryanodine receptor 3	RYR3