| Category | Descriptions | Accession Number | Naïve Mean intensity ± S.D. | | Axotomy Mean intensity ± S.D. | Fold change | P value | | Known Regulation |
|---|---|---|---|---|---|---|---|---|---|
| G Protein Coupled Receptors | α2-adrenergic receptor | M62372 | | A | | | | | ↑[27,28] |
| | α2-C4 adrenergic receptor | X57659 | | A | | | | | ↓[27] |
| | Angiotensin II receptor type 1 (AT1) | M74054 | | A | | | | | ↑[29] |
| | Angiotensin II receptor type 2 (AT2) | D16840 | | A | | | | | ↑[29] |
| | Bradykinin B1 receptor | AJ132230 | 2174 ± 1336 | | 1344 ± 149 | -1.6 | 0.3945 | | ↑[30] |
| | Bradykinin B2 receptor | X80187 | | A | | | | | ↑[30] |
| | Cholecystokinin-B receptor | M99418 | 587 ± 145 | | 534 ± 56 | -1.1 | 0.6011 | | ↑[31,32] |
| | Galanin receptor type 1 | U30290 | | A | | | | | ↓[33,34] |
| | Galanin receptor type 2 | U94322 | | A | | | | | ↓[34,35] |
| | NPY receptor type 1 (NPY-Y1) | Z11504 | 1826 ± 394 | | 1409 ± 124 | -1.3 | 0.2011 | | ↓[36,37] |
| | μ opioid receptor (MOR) | S77863 | 492 ± 187 | | 155 ± 103 | -3.2 | 0.0686 | | ↓[38] |
| | δ opioid receptor (DOR) | U00475 | | A | | | | | ↓[39] |
| Ligand-gated Ion channel Receptors | GABA-A receptor α2 subunit | L08491 | 2126 ± 867 | | 1311 ± 515 | -1.6 | 0.2491 | | NC[40] |
| | GABA-A receptor γ2 subunit | L08497 | 2945 ± 913 | | 2017 ± 176 | -1.5 | 0.2176 | | ↓[41] |
| | P2X3 receptor | X90651 | 9249 ± 1527 | | 8781 ± 839 | -1.1 | 0.6723 | | ↓[41,42] |
| | Vanilloid receptor 1 | AF029310 | 2859 ± 236 | | 1551 ± 28 | -1.8 | 0.0098 | ** | ↓[43] |
| Receptor Tyrosine Kinases | p75 (low affinity nerve growth factor receptor) | U25650 | | A | | | | | ↓[44] |
| | GFRα1(RET ligand 1) | U97142 | 4132 ± 755 | | 8443 ± 581 | 2.0 | 0.0019 | ** | ↑[45] |
| | GFRα2 (RET ligand 2) | U97143 | 5666 ± 302 | | 3264 ± 477 | -1.7 | 0.0034 | ** | ↓[45] |
| | TrkA (trk precursor) | M85214 | 13,953 ± 2027 | | 11,032 ± 1075 | -1.3 | 0.1134 | | ↓[46,47] |
| Cytokines/Growth Factors/Neuropeptides | Brain-derived neurotrophic factor | D10938 | 951 ± 217 | | 1509 ± 115 | 1.6 | 0.0286 | * | ↑[6,48,49] |
| | β-type calcitonin gene-related peptide | M11596 | 9689 ± 291 | | 5922 ± 785 | -1.6 | 0.0078 | ** | ↓[6,50] |
| | α-type calcitonin gene-related peptide | M11597 | 18,580 ± 795 | | 11,460 ± 2223 | -1.6 | 0.0211 | * | ↓[50] |
| | Cholecystokinin precursor | X01032 | | A | | | | | ↑[51] |
| | Basic fibroblast growth factor | M22427 | | A | | | | | ↑[6,52] |
| | Galanin | J03624 | 858 ± 269 | | 24,746 ± 1223 | 28.8 | 0.0005 | *** | ↑[6,53] |
| | Interleukin 1-β | M98820 | 512 ± 78 | | 567 ± 81 | 1.1 | 0.4516 | | ↑[54] |
| | Interleukin 6 | M26745 | | A | | | | | ↑[54] |
| | Neuropeptide Y | M15880 | 1648 ± 811 | | 16,056 ± 1874 | 9.7 | 0.0019 | ** | ↑[6,53] |
| | Pituitary adenylate cyclase activating peptide(PACAP) | X80290 | 3455 ± 434 | | 12,182 ± 290 | 3.5 | 0.0000 | *** | ↑[6,55] |
| | Somatostatin | M25890 | 12,590 ± 1303 | | 8470 ± 652 | -1.5 | 0.0170 | * | ↓[56] |
| | Substance P (δ-preprotachykinin) | X56306 | 9634 ± 1789 | | 4478 ± 882 | -2.2 | 0.0220 | * | ↓[50,56,57] |
| | Tumor necrosis factor | E02468 | | A | | | | | ↑[54] |
| | Islet Amyloid Polypeptide(IAPP) | X52820 | 431 ± 25 | | 91 ± 60 | -4.7 | 0.0048 | ** | ↓[58] |
| | Pancreatitis-associated protein (Reg-2) | M98049 | 143 ± 194 | | 2649 ± 39 | 18.5 | 0.0014 | ** | ↑[59] |
| Ion channels | Brain sodium channel III | Y00766 | 1033 ± 373 | | 1481 ± 195 | 1.4 | 0.1621 | | ↑[6,60,61] |
| | Voltage-dependent potassium channel protein | X12589 | 17,880 ± 4566 | | 16,984 ± 4118 | -1.1 | 0.8133 | | ↓[62] |
| | Voltage-gated sodium channel (SNS) | X92184 | 6061 ± 361 | | 3209 ± 561 | -1.9 | 0.0032 | ** | ↓[61,63,64] |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Calcium channel α-2 subunit (CCHL2A) | M86621 | 7267 ± 1792 | | 25,005 ± 1485 | 3.4 | 0.0002 | *** | ↑[65] |
| | Voltage-gated Na channel α subunit (NaN) | AF059030 | 9894 ± 349 | | 4685 ± 744 | -2.1 | 0.0021 | ** | ↓[64,66] |
| Cell cytoskeleton | Cytoplasmic β-actin | V01217 | 57,078 ± 3838 | | 53,731 ± 1322 | -1.1 | 0.2667 | | ↑[6,67] |
| | GAP-43 | L21192 | 15,593 ± 726 | | 28,364 ± 1579 | 1.8 | 0.0014 | ** | ↑[6,68] |
| | Glial fibrillary acidic protein | AF028784 | 1736 ± 34 | | 6600 ± 763 | 3.8 | 0.0080 | ** | ↑[69] |
| | Heavy neurofilament polypeptide (NF-H) | X13804 | 30,252 ± 6345 | | 25,354 ± 913 | -1.2 | 0.3123 | | ↓[6,70,71] |
| | Neurofilament protein middle (NF-M) | Z12152 | 67,966 ± 6714 | | 59,993 ± 445 | -1.1 | 0.1755 | | ↓[6,70,71] |
| | Light molecular-weight neurofilament (NF-L) | AF031880 | 92,359 ± 16347 | | 88,311 ± 10462 | 1.0 | 0.7392 | | ↓[6,70,71] |
| | Peripherin | AF031878 | 45,476 ± 5165 | | 39,811 ± 5206 | -1.1 | 0.2519 | | ↑[6,70,72] |
| | α-tubulin | V01227 | 78,905 ± 10273 | | 69,659 ± 4157 | -1.1 | 0.2559 | | ↑[6] |
| | Tubulin | AB015946 | 2636 ± 314 | | 2055 ± 46 | -1.3 | 0.0820 | | ↑[6,73,74] |
| | Muscle LIM protein | X81193 | 677 ± 76 | | 2676 ± 480 | 4.0 | 0.0167 | * | ↑[75] |
| | Small proline rich protein 1a (EST195714) | AA891911 | 1063 ± 205 | | 3856 ± 263 | 3.6 | 0.0002 | *** | ↑[8] |
| Transcription factors | Leucine zipper protein (ATF3) | M63282 | 1187 ± 106 | | 13,509 ± 800 | 11.4 | 0.0012 | ** | ↑[76] |
| | c-jun | X17163 | 591 ± 284 | | 4325 ± 459 | 7.3 | 0.0007 | *** | ↑[77,78,79] |
| | jun-D | D26307 | | A | | | | | ↑[77,78,79] |
| Cell surface/ Extracellular matrix | Epididymal glycoprotein (AEG) | M31173 | 175 ± 110 | | 1319 ± 587 | 7.5 | 0.0728 | | ↑[75] |
| | H36-α-7 integrin α-chain | X65036 | 13,182 ± 529 | | 20,346 ± 992 | 1.5 | 0.0015 | ** | ↑[80] |
| | 140-kD NCAM | X06564 | | A | | | | | ↑[81] |
| | Neural cell adhesion molecule L1 | X59149 | 10,773 ± 1669 | | 13,014 ± 1172 | 1.2 | 0.1380 | | NC[82] |
| | Neuropilin | AF016296 | 2810 ± 282 | | 2249 ± 332 | -1.2 | 0.0914 | | ↑[83] |
| | Ninjurin1 | U72660 | 4743 ± 499 | | 4611 ± 307 | 1.0 | 0.7194 | | ↑[84] |
| Enzymes | Neuronal nitric oxide synthase | U67309 | | A | | | | | ↑[85,86] |
| Cell death / Survival | Bax-α | U59184 | 12,481 ± 683 | | 12,148 ± 831 | 1.0 | 0.6212 | | NC[6,87,88] |
| | Bcl-2 | L14680 | 2186 ± 261 | | 2067 ± 35 | -1.1 | 0.5127 | | ↓[87,89] |
| | Bcl-xlong | U34963 | 1704 ± 241 | | 1645 ± 386 | 1.0 | 0.8345 | | ↓[88] |
| | Manganese-containing superoxide dismutase(MnSoD) | Y00497 | 3253 ± 1144 | | 3607 ± 553 | 1.1 | 0.6639 | | ↑[6] |
| | Heat shock protein 27 | M86389 | 19,180 ± 2006 | | 55,523 ± 10563 | 2.9 | 0.0237 | ** | ↑[15] |
| | Copper-zinc containing superoxide dismutase | M21060 | 24,631 ± 2828 | | 24,881 ± 453 | 1.0 | 0.8934 | | NC[6] |
| Metabolism | Cutaneous fatty acid-binding protein | S69874 | 32,900 ± 5376 | | 50,563 ± 3593 | 1.5 | 0.0126 | ** | ↑[90] |
| | Cyclophilin | M19533 | 40,897 ± 7071 | | 38,716 ± 5193 | -1.1 | 0.6909 | | NC[15] |
| | | | | | | | | | |

Key to abbreviations, A - Gene judged absent in all arrays; NC – No change; * p<0.05, ** p<0.01, *** p<0.001.

**Table 1: Comparison of microarray and known regulation data for genes whose expression pattern within the DRG following nerve injury has been studied previously.**