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| Sanes & Lichtman Molecules | Related Transcripts |
| GLUTAMATE RECEPTORS | | | |
| GluR1, GluR2 | *Gria1, Gria2* |
| mGluR1, mGluR4, mGluR5, mGluR7 | *Grm1, Grm4, Grm5, Grm7* |
| NMDA NR2A, NMDA NR2D, NMDA NR1 | *Grin1, Grin2a, Grin2d* |
| OTHER NEUROTRANSMITTERS | | | |
| norepinephrine and b-adrenergic receptors | *Adrb1, Adrb2, Adrb3* |
| adenosine and adenosine 2A receptors | *Adra1a, Adra1b, Adra1d, Adra2a, Adra2b, Adra2c* |
| dopamine and D1 dopamine receptors | *Th, Drd1* |
| mu and delta opioid receptors | *Oprm1, Oprd1* |
| acetylcholine receptors | *Chrna1, Chrna7, Chrna3, Chrnb1, Chrnb2, Chrnb3* |
| muscarinic receptors | *Chrm1, Chrm2, Chrm3, Chrm4, Chrm5* |
| GABA receptors | *Gabra1, Gabra2, Gabra3, Gabra5, Gabra6* |
| GABA-B receptors | *Gabrb1, Gabrb2, Gabrb3* |
| cannabinoid receptor | *Cnr1, Cnr2* |
| orphanin NQ and nocioceptin receptors | *Pnoc, Oprl1* |
| serotonin receptors | *Htr1a, Htr1b, Htr1f, Htr2a, Htr2c, Htr2b, Hr3a, Htr3b, Htr5a, Htr5b, Htr7, Htr6, Htr4* |
| endothelin-1 | *Edn1* |
| gamma-aminobutyric acid (GHB) receptors | *Gabrr1, Gabbr1* |
| INTERCELLULAR MESSENGERS, THEIR SYNTHETIC ENZYMES AND THEIR RECEPTORS | | | |
| CO | *NA* |
| NO | *NA* |
| EGF | *Egf* |
| basic FGF | *Fgf2* |
| superoxide | *NA* |
| neuregulin | *Nrg1, Nrg2, Nrg3* |
| erbB4 | *Erbb4* |
| NGF | *Ngf* |
| BDNF | *Bdnf* |
| TrkB | *Ntrk2* |
| nNOS, eNOS | *Nos1, Nos3* |
| arachidonic acid | *NA* |
| platelet activating factor | *NA* |
| interleukin 1 beta | *Il1b* |
| H2S | *NA* |
| beta activin | *Inhba* |
| CALCIUM/CALMODULIN BINDING PROTEINS | | | |
| calmodulin | *Calm1, Calm2, Calm3* |
| RC3/neurogranin | *Nrgn* |
| calretinin | *Calb1, Calb2* |
| GAP43/B50/neuromodulin | *Gap43* |
| S100 | *S100b* |
| ION CHANNELS |  |
| L-type calcium channels | *Cacna1c, Cacna1d, Cacna1s, Cacna1f, Cacna1b, Cacna1a, Cacna1e* |
| olfactory cyclic nucleotide-gated channel | *Cnga2* |
| VESICLE- AND SYNAPSE-ASSOCIATED PROTEINS | | | |
| synaptophysin | *Syp* |
| a-SNAP | *Napa* |
| VAMP | *Vamp1, Vamp2, Vamp3, Vamp4, Vamp5, Vamp8* |
| rab3a | *Rab3a* |
| syntaxin 1B | *Stx1b* |
| Synapsin I | *Syn1* |
| SNAP 25 | *Snap25* |
| PSD-95 | *Dlg4* |
| TRANSCRIPTION FACTORS | | | |
| Retinoic acid receptor beta | *Rarb* |
| CREB | *Creb1* |
| Krox 20, Krox 24 | *Egr1, Egr2* |
| ADHESION MOLECULES | | |
| ephA5 | *Epha5* |
| ephrinA5 | *Efna5* |
| NCAM | *Ncam1, Ncam2* |
| E-cadherin, N-cadherin | *Cdh1, Cdh2* |
| thy-1 | *Thy1* |
| telencephalin | *Icam5* |
| L1/NgCAM | *L1cam* |
| HB-GAM/pleitrophin | *Ptn* |
| integrins | *Itga1, Itga10, Itga11, Itga2, Itga2b, Itga3, Itga4, Itga5, Itga6, Itga7, Itga8, Itga9, Itgad, Itgae, Itgal, Itgam, Itgav, Itgax, Itgb1, Itgb1bp1, Itgb2, Itgb2l, Itgb3, Itgb3bp, Itgb4, Itgb5, Itgb6, Itgb7, Itgb8, Itgbl1* |
| integrin-associated protein | *Cd47* |
| tenascin-C | *Tnc* |
| CARBOHYDRATES | | | |
| Polysialic acid | *NA* |
| Ganglioside GM1 | *NA* |
| Ganglioside GQ1B | *NA* |
| KINASES |  |
| inositol-triphosphate-3-kinase | *Itpka, Itpkb, Itpkc* |
| MAPK | *Mapk1, Mapk10, Mapk11, Mapk12, Mapk14, Mapk3, Mapk4, Mapk6, Mapk7, Mapk8, Mapk9* |
| src | *Src* |
| fyn | *Fyn* |
| protein kinase A C beta 1 subunit | *Prkacb* |
| protein kinase A RI beta subunit | *Prkar1b* |
| protein kinase C-gamma | *Prkcg* |
| protein kinase G | *Prkg1* |
| protein kinase M-zeta | *Prkcz* |
| CaM kinase I, II, IV | *Camk1, Camk2, Camk4* |
| ecto-protein kinase | *NA* |
| PROTEASES AND THEIR INHIBITORS | | | |
| calpain | *Capn1, Capn10, Capn11, Capn12, Capn13, Capn15, Capn2, Capn3, Capn5, Capn6, Capn7, Capn8, Capn9* |
| calpastatin | *Cast* |
| protease nexin 1 | *Serpine2* |
| tissue plasminogen activator | *Plat* |
| plasmin | *Plg* |
| E6-AP ubiquitin ligase | *Ube3a* |
| OTHER ENZYMES | | |
| phospholipase A2 | *Pla2g10, Pla2g12a, Pla2g12b, Pla2g15, Pla2g16, Pla2g1b, Pla2g2a, Pla2g2c, Pla2g2d, Pla2g2e, Pla2g2f, Pla2g3, Pla2g4a, Pla2g4b, Pla2g4e, Pla2g4f, Pla2g5, Pla2g6, Pla2g7* |
| phospholipase C beta | *Plcb1, Plcb2, Plcb3, Plcb4* |
| phospholipase C gamma | *Plcg1, Plcg2* |
| ADP ribosyl transferase | *Parp1* |
| calcineurin | *Ppp3ca, Ppp3cb, Ppp3cc* |
| protein phosphatase I | *Phpt1* |
| acetylcholinesterase | *Ache* |
| adenylate cyclase | *Adcy1, Adcy10, Adcy2, Adcy3, Adcy4, Adcy5, Adcy6, Adcy7, Adcy8, Adcy9* |
| guanylate cyclase | *Gucy1a2, Gucy1a3, Gucy1b2, Gucy1b3, Gucy2c, Gucy2d, Gucy2e, Gucy2g* |
| MISCELLANEOUS | | |
| Spectrin/fodrin | *Sptan1, Sptbn1* |
| GFAP | *Gfap* |
| Stathmin RB3/XB3 | *Stmn4* |
| EBI-1 G protein-coupled receptor | *Ccr7* |
| Mas G-protein coupled receptor | *Mas1* |
| Vesl | *Homer1, Homer2, Homer3* |