

Explore the Biology of Neuropathic Pain

with nCounter Gene Expression Analysis

Pathway-based gene expression studies have proven valuable when studying complex diseases, both in providing a framework for comprehensive measurement of biological mechanisms and in establishing potentially predictive signatures of progression and drug response. Due to the diverse cellular origins and manifestations of neuropathic pain, understanding molecular differences could provide important insight into pathogenesis.

nCounter® Gene Expression Assays reduce time to data with a simple workflow of less than 15 minutes hands-on time and streamlined analysis generating results in under 24 hours, for translational research and biomarker discovery.

- Analyze up to 800 genes simultaneously in a single sample
- Flexible content allows you to select the genes of your choice
- Compatible with Total RNA, FFPE, cell lysate, PBMC, plasma, serum and more
- No amplification, cDNA conversion or library prep with as little as 25 ng input material required
- nCounter platform cited in over 2,000 peer-reviewed publications

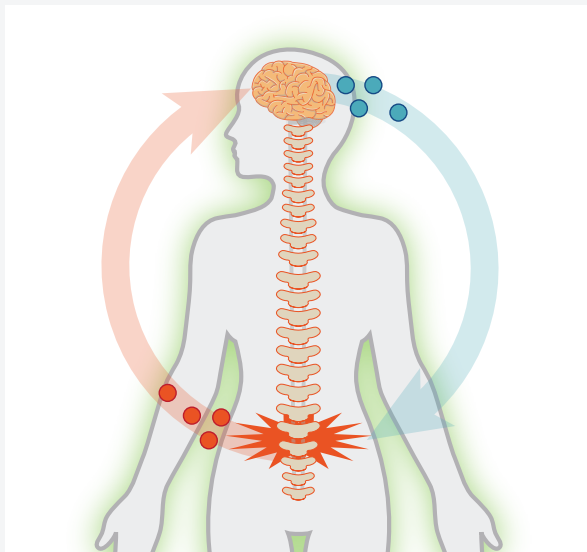


Illustration of neural pathways involved in perception of pain (red) and release of endorphins (blue).

Utilize our curated content below and exchange or add additional targets to meet your experimental needs.

Conduction of Pain

Ion channels	KCNIP3, KCNJ6, KCNQ2, KCNQ3, KCNQ3, SCN10A, SCN11A, SCN3A, SCN9A, SLC6A2, TRPA1, TRPV1, TRPV3, CACNA1A, CACNA1B
Neurotransmitter receptors	ADORA1, ADRB2, BDKRB1, GRIN1, GRIN2B, GRM1, GRM5, HTR1A, HTR2A, OPRD1, OPRK1, OPRM1, P2RX3, P2RX4, P2RX7, P2RY1, P2RY12, CNR1, CNR2, CHRNA4
Inflammation	ALOX15, ALOX5, CCL2, CCR2, CD200, CD4, CSF1, CX3CR1, P2RY12, IL10, IL18, IL1A, IL1B, IL2, IL6, ITGAM, ITGB2, TLR2, TLR4, TNF, PTGER1, PTGER3, PTGER4, PTGES, PTGES2, PTGES3, PTGS1, PTGS2, ACE, EDN1, TAC1, TACR1, PROK2, CALCA, FAAH, ABCB1, PLA2G1B
Neurotransmitters and Signaling	COMT, BDNF, EDN1, EDNRA, MAOA, MAOB, NGF, NTRK1, MAPK1, MAPK14, MAPK3, MAPK8, GDNF, PDYN, PNOC, CCK, CCKBR, ATP1A2, GCH1, WNK1
Internal Reference Genes	ABCF1, GUSB, HPRT1, LDHA, POLR1B, RPLP0

Synaptic Transmission

Glutamate Receptors:	Grin1, Grin2b, Grm1, Grm5
Serotonin (5-Hydroxytryptamine) Receptors:	Htr1a, Htr2a
Calcium Channels:	Cacna1b

Pain Response Modulation

Eicosanoid Metabolism	Pla2g1b, Ptger1, Ptger3, Ptger4, Ptges, Ptges2, Ptges3, Ptgs1 (COX1), Ptgs2 (COX2)
Inflammation:	Ace, Alox5, Bdkrb1, Calca, Cck, Cckbr, Ccl12 (MCP-5, Scya12), Ccr2, Cd200, Cd4, Chrna4, Csf1 (Mcsf), Cx3cr1, Dbh, Edn1, Ednra, Faah, Gch1, Il10, Il18, Il1a, Il1b, Il2, Il6, Itgam, Itgb2, Mapk1 (Erk2), Mapk14 (p38alpha), Mapk3 (Erk1), Mapk8 (JNK1), Penk, Pnoc, Prok2, Tac1, Tacr1, Tlr2, Tlr4, Tnf
Neurotransmitters:	Adrb2, Comt, Dbh, Maob, Pdyn, Penk, Pnoc
Neurotrophins:	Bdnf, Gdnf, Ngf, Ntrk1

Contact your local representative for a project consultation today and visit our website for more information: nanosttring.com/neuroscience

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