

1 Supplementary Table 1: Sequences of FISH oligonucleotide probes.

| Gene name | Channel name | NCBI Accession | Nucleotide position | Sense Sequence |
|-----------|--------------|----------------|---------------------|--|
| CACNA1c | Cav1.2 | NM_000719.4 | 1633 | GGATGAGGAGAAGCCCCGAAACATGAGCATGCCACCAGTGAGAC |
| CACNA1g | Cav3.1 | NM_198376.1 | 2270 | ACAAGCTGCTGGAGACACAGAGTACAGGTGCCTGCCAAAGCTCTT |
| CACNA1h | Cav3.2 | NM_001005407.1 | 6515 | CCCAGCCGACGAGGAGGTCAGCCACATCACCAGCTCCGCCTGCC |
| HCN1 | HCN1 | NM_021072.1 | 503 | ATACCAGTTGGAATCACATTCTTTACAGAGCAAACAACAACACCA |
| HCN2 | HCN2 | NM_001194.2 | 1107 | GAGATCTTCCACATGACCTATGACCTGGCCAGCGCGGTGATGAGG |
| HCN3 | HCN3 | NM_020897.1 | 2276 | GCCACCAGTGCCTGAGCCAGCCACACCCCGGGTCTCCAGCTTTC |
| HCN4 | HCN4 | NM_005477.1 | 4031 | GACATCCTCAGGTTCTTTGCCACCCCTCTGTCTTTGTTT |
| SCN1A | Nav1.1 | NM_006920.3 | 812 | GCAACCTGAGGAATAAATGTATAACAATGGCCTCCCACCAATGCTT |
| SCN3A | Nav1.3 | NM_006922.2 | 3577 | GTTATAGAAATCCATGAAGGCAATAAGATAGACAGCTGCATGTCC |
| SCN4A | Nav1.4 | NM_000334.4 | 4980 | ATCGCCTACAGCCGCTCTCAGACTTCGTGGACACCTGCAGGAA |
| SCN5A | Nav1.5 | NM_198056.1 | 511 | GTGCCACCAACGCCTTGATGTCCTCAGTCCCTCCACCCCATCC |
| SCN8A | Nav1.6 | NM_014191.1 | 216 | GTTTCAAGCCTTTCACCCCTGAGTCACTGGCAAACATTGAGAGGC |
| SCN9A | Nav1.7 | NM_002977.1 | 4129 | GCCCTTATGAATGTTAGTCAAATGTGCGATGGAAAAACCTGAAA |

2
3 Probes not listed were reported previously (11). Sequences listed 5' to 3'.
4