**Supplementary file 5**

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| **Target gene** | **sgRNA name** | **sgRNA sequence** |
| KCNN4 | sgKCNN4.1 | CTGCCCGAGTGCTACAAGAA |
| KCNN4 | sgKCNN4.2 | CATGGTGCCCGGCACCACGT |
| KCNK5 | sgKCNK5.1 | ATGGTGGTAATGACGGTCGC |
| KCNK5 | sgKCNK5.2 | CTCTGCCTGACGTGGATCAG |
| KCNQ5 | sgKCNQ5.1 | TCTAGGAATTAATTCACAGC |
| KCNQ5 | sgKCNQ5.2 | ACAGATCCTCCGCATGGTCG |