

Human cDNA for SCN5A replaces exon 2 of mouse SCN5A. Insertion at this location disrupts expression of mouse ortholog. This mouse is heterozygous for SCN5A mutation D1275N. Recombinase mediated cassette exchange was used to insert human SCN5A cDNA between two loxP sites. Expression of human SCN5A is dependent on native mouse promoters for SCN5A. The D1275N allele has a single flag tag.

Keywords: [Scn5a](#) [Rdn](#) [D1275N](#) [RMCE](#)

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Mouse Information

| | |
|----------------------------|-----------------|
| Common Name | DNH-SCN5A-Sv129 |
| VCMR ID | YP |
| Date Cryopreserved | 2018-05-21 |
| Method of Cryopreservation | Sperm |
| Trial IVF % Fertilization | 21.00% |

Genetic Alteration

| Mutation #1: Targeted Mutagenesis | |
|-----------------------------------|---|
| Allele | Name: sodium channel, voltage-gated, type V, alpha; targeted mutation 3, Dan M Roden Symbol: Scn5a ^{tm3SCN5A*)} Rdn MGI: 5445892 |
| Zygoty at cryopreservation | Heterozygous |
| PCR Genotyping Protocol | Genotyping_Protocol_YP.pdf |
| Citations | <p>Publication</p> <p>Striking In vivo phenotype of a disease-associated human SCN5A mutation producing minimal changes in vitro. (2011) <i>Circulation</i> 124: 1001-11 (Added 12/5/2013) PMID: 21824921</p> |

Background Strain Information

| | |
|-------------|-----------------|
| Strain Type | Congenic Strain |
|-------------|-----------------|

| | |
|--|---|
| Chimera/Founder Genetic Background | 129S6/SvEvTac |
| Cryopreservation Strain Background (VCMR) | 129S6/SvEvTac |
| Viability and Fertility Data | Homozygous pups are viable. Normal litter sizes for Sv129 mice. Mice are fertile through 6 months of age. |
