

Resource Summary Report

Generated by [SPARC SAWG](#) on Sep 22, 2026

pIR-CMV-SCN1A-Variant-1-IRES-mScarlet

RRID:Addgene_162278

Type: Plasmid

Proper Citation

RRID:Addgene_162278

Plasmid Information

URL: <http://www.addgene.org/162278>

Proper Citation: RRID:Addgene_162278

Insert Name: SCN1A Variant 1, stabilized

Organism: Homo sapiens

Bacterial Resistance: Kanamycin

Defining Citation: [PMID:33460646](#)

Vector Backbone Description: Backbone Size:6053; Vector Backbone:pIR-CMV-IRES-mScarlet; Vector Types:Mammalian Expression; Bacterial Resistance:Kanamycin

Comments: The SCN1A channel cDNA has been altered to be stably maintained in standard E.coli strains at high copy under standard growth conditions. Please visit <https://www.biorxiv.org/content/10.1101/2020.11.05.370429v1> for bioRxiv preprint.

Plasmid Name: pIR-CMV-SCN1A-Variant-1-IRES-mScarlet

Relevant Mutation: IVS intron inserted after bp2946. Silent codon changes at c.879G>A, c.T897T>C, c.900T>C, c.903T>C and 4288 T>C.

Record Creation Time: 20220422T221917+0000

Record Last Update: 20260919T091232+0000

Ratings and Alerts

No rating or validation information has been found for pIR-CMV-SCN1A-Variant-1-IRES-mScarlet.

No alerts have been found for pIR-CMV-SCN1A-Variant-1-IRES-mScarlet.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 3 mentions in open access literature.

Listed below are recent publications. The full list is available at [SPARC SAWG](#) .

Mahling R, et al. (2025) De novo design of a peptide modulator to reverse sodium channel dysfunction linked to cardiac arrhythmias and epilepsy. Cell.

Park ER, et al. (2025) A chemogenetic ligand-receptor pair for voltage-gated sodium channel subtype-selective inhibition. bioRxiv : the preprint server for biology.

Ergin B, et al. (2023) De Novo Cloning and Functional Characterization of a Mechanosensitive Piezo-Like Ion Channel in the Crayfish. Cellular physiology and biochemistry : international journal of experimental cellular physiology, biochemistry, and pharmacology, 57(4), 226.