

PrecisION[®] hNav1.4 Recombinant Stable Cell Line

Catalog Number CYL3024

Lot Number

See Vial

Contents 2 Vials, 2 x 10⁶ to 4 x 10⁶ in 1 mL

Background Information

hNav1.4 is primarily expressed in skeletal muscle and involved in the initiation and transmission of muscle action potentials. This ion channel is a target for local anaesthetics used in the treatment of myotonia, a disorder characterized by the slow relaxation of muscles after voluntary contraction or electrical stimulation. Myotonia is a symptom commonly seen in patients with myotonic muscular dystrophy.

Product Information

Description Recombinant HEK 293 cell line expressing the human Nav1.4 (type IV voltage-gated sodium channel alpha subunit, skeletal muscle)

Family Sodium, Voltage-Gated

Target Nav1.4

	Target Protein	Accession Number
1	Nav1.4	NM_000334
2	N/A	N/A
3	N/A	N/A
4	N/A	N/A

Species Human

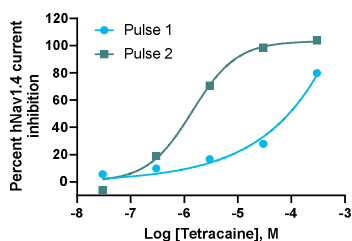
Host Cell Type HEK 293

Application Electrophysiology assay (conventional and automated patch clamp platforms)

Storage Vials are to be stored in vapor phase of liquid nitrogen

Functional Performance

HEK293 cells expressing hNav1.4 were characterized in terms of their pharmacological and biophysical properties using whole-cell patch clamp techniques.



Electrophysiology Method QPatch

Reference Agonist

Reference Antagonist Tetracaine

Antagonist IC₅₀ (μM) 1.41

Passage Stability

This cell line has been confirmed to be stable through at least 12 passages with no significant drop in assay window or change in pharmacology.

Mycoplasma Testing

This lot was tested and found to be free of mycoplasma contamination. Data available upon request.

Notes

Additional functional (pharmacological and electrophysiological) validation on multiple platforms is available upon request.

Additional Ligand Information

Control Compound Tetracaine

Vendor Name : Sigma-Aldrich

Vendor Catalog No. T7383

Additional Background Information

N/A

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