Recombinant SCN5A protein (His tag)

Catalog Number	538053
Synonyms	Sodium channel protein cardiac muscle subunit alpha; Sodium channel protein type V subunit alpha; Voltage-gated sodium channel subunit alpha Nav1.5; hH1
Species	Human
Expression System	E. coli
Accession	Q14524
Molecular Weight	Predictes a molecular mass of 14.33 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 14 kDa band.

Product Information

Sequence Region	273-386
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 273-386 aa (Q14524) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human SCN5A (Sodium Channel Protein Type 5 Subunit Alpha) Fragment (residues 273-386) is a high-purity, stable protein fragment derived from the cardiac voltage-gated sodium channel Nav1.5. This 114-amino acid fragment is optimized for structural and biochemical studies, offering researchers a soluble and functional unit for investigating sodium channel biology and cardiac electrophysiology. The full-length Sodium Channel Protein Type 5 Subunit Alpha (SCN5A), also known as Nav1.5, is the pore-forming subunit of voltage-gated sodium channels predominantly expressed in cardiac myocytes. It directly mediates the depolarizing phase of action potentials by allowing selective Na+ ion influx upon membrane voltage changes, initiating and propagating electrical signals essential for heartbeat regulation. SCN5A is critical for normal cardiac electrical conduction, including ventricular conduction system formation and action potential configuration, and localizes to the cell membrane, sarcolemma, T-tubules, and intercalated disks, with roles influenced by interactions with proteins like XIRP2 and PKP2. This fragment (273-386) represents a computationally selected, stable region ideal for probing sodium channel structure-function relationships without domain-specific annotations.