Human SCN2B Protein (His Tag)

Catalog Number: **13859-H08H**

General Information

Gene Name Synonym:

ATFB14

Protein Construction:

A DNA sequence encoding the human SCN2B (O60939) (Met1-Ala159) was expressed with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met 30

Molecular Mass:

The recombinant human SCN2B consists of 141 amino acids and predicts a molecular mass of 16.6 KDa. It migrates as an approximately 24-33 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

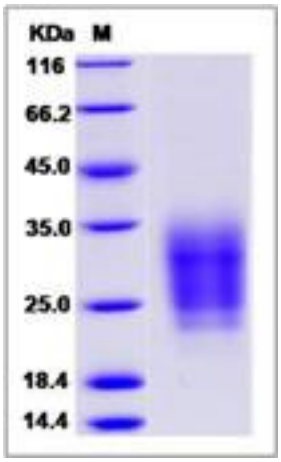
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

SCN2B plays a key role in the assembly, expression, and functional modulation of the heterotrimeric complex of the sodium channel. Voltage-gated sodium channels (NaV) are composed of one pore-forming alpha-subunit, which may be associated with either one or more beta-subunits. Alpha-subunits are composed for four homologous domains, each of which contains six transmembrane segments.They are responsible for action potential initiation and propagation in excitable cells, including nerve, muscle, and neuroendocrine cell types. SCN2B causes an increase in the plasma membrane surface area and in its folding into microvilli. SCN2B also interacts with TNR and may play a crucial role in clustering and regulation of activity of sodium channels at nodes of ranvier.

References

1.Kimura K, *et al*. (2006) Diversification of transcriptional modulation: large-scale identification and characterization of putative alternative promoters of human genes. Genome Res. 16(1):55-65. 2.Tan BH, *et al*. (2010) Sudden infant death syndrome-associated mutations in the sodium channel beta subunits. Heart Rhythm. 7(6):771-8. 3.Watanabe H, *et al*. (2009) Mutations in sodium channel beta1- and beta2-subunits associated with atrial fibrillation. Circ Arrhythm Electrophysiol. 2(3):268-75. Kimura K et al., 2006, Genome Res. 16(1):55-65.