Proteins



Product Data Sheet

NHP2 Protein, Human (His)

Cat. No.: HY-P71160

Synonyms: H/ACA ribonucleoprotein complex subunit 2; Nucleolar protein family A member 2; snoRNP

protein NHP2; NHP2; NOLA2; NHP2P.

Human Species: Source: E. coli

Accession: Q9NX24 (M1-L153)

Gene ID: 55651

Molecular Weight: Approximately 22.0 kDa

PROPERTIES

AA Sequence

MTKIKADPDG PEAQAEACSG ERTYQELLVN QNPIAQPLAS RRLTRKLYKC IKKAVKQKQI RRGVKEVQKF VNKGEKGIMV LAGDTLPIEV YCHLPVMCED RNLPYVYIPS KTDLGAAAGS

KRPTCVIMVK PHEEYQEAYD ECLEEVQSLP LPL

Appearance Solution.

Formulation Supplied as a 0.2 µm filtered solution of 20 mM Tris, 100 mM NaCl, 1 mM DTT, pH 8.0.

Endotoxin Level <1 EU/µg, determined by LAL method.

Reconsititution N/A

Storage & Stability Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for

extended storage. Avoid repeated freeze-thaw cycles.

Shipping Shipping with dry ice.

DESCRIPTION

Background

NHP2 plays an essential role in cellular processes by participating in ribosome biogenesis and telomere maintenance. As a component of the H/ACA small nucleolar ribonucleoprotein (H/ACA snoRNP) complex, NHP2 contributes to the catalysis of pseudouridylation in rRNA, a modification critical for stabilizing rRNA conformation. Additionally, NHP2 is implicated in the correct processing and intranuclear trafficking of TERC, the RNA component of the telomerase reverse transcriptase (TERT) holoenzyme. The H/ACA snoRNP complex, comprising NHP2 along with other subunits, including GAR1, NOP10, and DKC1, forms a stable core involved in recognizing specific RNA substrates. During assembly, NHP2 interacts with NAF1, and the complex binds box H/ACA snoRNAs or TERC, with GAR1 and NHP2 mediating specific interactions. NHP2 is also associated with NOLC1/NOPP140. Moreover, NHP2 contributes to the telomerase holoenzyme complex, collaborating with TERT, WRAP53/TCAB1, DKC1, NOP10, and GAR1, in concert with other components such as TEP1, SMG6/EST1A, and POT1. These

interactions underline the multifaceted roles of NHP2 in fundamental cellular functions.

Caution: Product has not been fully validated for medical applications. For research use only.

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