NHP2L1 Protein, Human (His)

Cat. No.:	HY-P71161
Synonyms:	NHP2-Like Protein 1; High Mobility Group-Like Nuclear Protein 2 Homolog 1; OTK27; SNU13 Homolog; hSNU13; U4/U6.U5 tri-snRNP 15.5 kDa Protein; NHP2L1
Species:	Human
Source:	E. coli
Accession:	P55769 (M1-V128)
Gene ID:	4809
Molecular Weight:	Approximately 16.0 kDa

PROPERTIES

AA Sequence	M T E A D V N P K A Y P L A D A H L T K K L L D L V Q Q S C N Y K Q L R K G A N E A T K T L N R G I S E F I V M A A D A E P L E I I L H L P L L C E D K N V P Y V F V R S K Q A L G R A C G V S R P V I A C S V T I K E G S Q L K Q Q I Q S I Q Q S I E R L L V
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 600 mM NaCl, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US;may vary elsewhere.

DESCRIPTION

Background	NHP2L1, a crucial participant in ribosome biogenesis, is an integral component of the small subunit (SSU) processome, the initial precursor of the small eukaryotic ribosomal subunit. Within the nucleolus, the SSU processome assembles, bringing together ribosome biogenesis factors, an RNA chaperone, and ribosomal proteins to collaboratively orchestrate the folding, modification, rearrangement, and cleavage of nascent pre-rRNA, alongside the targeted degradation of pre-ribosomal RNA facilitated by the RNA exosome. Additionally, NHP2L1 plays a role in pre-mRNA splicing as part of the spliceosome, where it binds to the 5'-stem-loop of U4 snRNA, contributing to spliceosome assembly. This protein undergoes a conformational change upon RNA binding and is identified in the spliceosome B complex. Furthermore, NHP2L1 is a constituent of the U4/U6-U5 tri-snRNP complex, and its interactions with RAD17 and PRPF31 highlight its multifaceted involvement in intricate

	cellular processes.

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

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