

## NCL Protein, Human (P.pastoris, His)

<b>Cat. No.:</b>	HY-P71760
<b>Synonyms:</b>	C23; FLJ45706; MS1116; NCL; Nucl; Nucleolin; Protein C23
<b>Species:</b>	Human
<b>Source:</b>	P. pastoris
<b>Accession:</b>	P19338 (V2-S482)
<b>Gene ID:</b>	4691
<b>Molecular Weight:</b>	Approximately 72 kDa. The reducing (R) protein migrates as 72 kDa in SDS-PAGE maybe due to post-translational modification.

### PROPERTIES

#### AA Sequence

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V K L A K A G K N Q   G D P K K M A P P P   K E V E E D S E D E   E M S E D E E D D S
S G E E V V I P Q K   K G K K A A A T S A   K K V V V S P T K K   V A V A T P A K K A
A V T P G K K A A A   T P A K K T V T P A   K A V T T P G K K G   A T P G K A L V A T
P G K K G A A I P A   K G A K N G K N A K   K E D S D E E E D D   D S E E D E E D D E
D E D E D E D E I E   P A A M K A A A A A   P A S E D E D D E D   D E D D E D D D D D
E E D D S E E E A M   E T T P A K G K K A   A K V V P V K A K N   V A E D E D E E E D
D E D E D D D D D E   D D E D D D D E D D   E E E E E E E E E E   P V K E A P G K R K
K E M A K Q K A A P   E A K K Q K V E G T   E P T T A F N L F V   G N L N F N K S A P
E L K T G I S D V F   A K N D L A V V D V   R I G M T R K F G Y   V D F E S A E D L E
K A L E L T G L K V   F G N E I K L E K P   K G K D S K K E R D   A R T L L A K N L P
Y K V T Q D E L K E   V F E D A A E I R L   V S K D G K S K G I   A Y I E F K T E A D
A E K T F E E K Q G   T E I D G R S I S L   Y Y T G E K G Q N Q   D Y R G G K N S T W
S

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#### Appearance

Lyophilized powder

#### Formulation

Lyophilized from a 0.2 µm sterile filtered PBS, 6% Trehalose, pH 7.4 or 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0

#### Endotoxin Level

<1 EU/µg, determined by LAL method.

#### Reconstitution

It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH<sub>2</sub>O.

#### 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

Nucleolin (NCL) serves as the major nucleolar protein in actively growing eukaryotic cells, associating with intranucleolar chromatin and pre-ribosomal particles. Its involvement in inducing chromatin decondensation is facilitated by binding to histone H1. Nucleolin is implicated in pre-rRNA transcription, ribosome assembly, and potentially plays a role in transcriptional elongation. It exhibits a higher affinity for RNA oligonucleotides containing 5'-UUAGGG-3' repeats compared to telomeric single-stranded DNA with 5'-TTAGGG-3' repeats. Additionally, NCL is identified in an IGF2BP1-dependent mRNP granule complex. It is part of the SWAP complex and a larger complex involving HTATSF1, CDK9, CCNT1, RNA polymerase II, SUPT5H, and Nucleolin. NCL engages in diverse interactions with proteins such as AICDA, APTX, C1QBP, ERBB4, FMR1, GZF1, NSUN2, NVL, SETX, TERT, WDR46, ZFP36, LRRC34, RRP1B, HNRNPU, RIOK1, ZBTB7B, MDK, and HDGF, highlighting its multifaceted roles in various cellular processes.

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

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