

## CDKN2A Protein, Human

<b>Cat. No.:</b>	HY-P72785
<b>Synonyms:</b>	Cyclin-dependent kinase inhibitor 2A; CDK4I; MTS-1; p16INK4A
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	P42771 (E2-D156)
<b>Gene ID:</b>	1029
<b>Molecular Weight:</b>	Approximately 19.12 kDa

### PROPERTIES

#### AA Sequence

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

#### Biological Activity

Data is not available.

#### Appearance

Lyophilized powder.

#### Formulation

Lyophilized from a 0.2  $\mu$ m filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4.

#### Endotoxin Level

<1 EU/ $\mu$ g; determined by LAL method.

#### Reconstitution

It is not recommended to reconstitute to a concentration less than 100  $\mu$ g/mL in ddH<sub>2</sub>O. 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**

CDKN2A Protein serves as a potent negative regulator of normal cell proliferation by forming robust interactions with CDK4 and CDK6, thereby impeding their association with cyclins D and hampering the phosphorylation of the retinoblastoma protein. It functions in a heterodimeric fashion with either CDK4 or CDK6, with the majority of p16 complexes predominantly featuring CDK6. The interaction with CDK4, occurring with both 'T-172'-phosphorylated and non-phosphorylated forms, effectively inhibits the kinase activity of cyclin D-CDK4. Additionally, CDKN2A Protein engages with ISCO2, contributing to its regulatory role in cell cycle progression.

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

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