

## HUMAN P16(11-40) PROTEIN, HFC TAG

**Cat.#:** 11955

**Product Name:** Human P16(11-40) Protein

**Size:** 10 µg, 50 µg and 100 µg

**Synonyms:** CDKN2A;ARF;MLM;P14;P19;CMM2;INK4;MTS1;TP16;CDK4;CDKN2;INK4A;MTS-1;P14ARF;P19ARF;P16INK4;P16INK4A;P16-INK4A

**Target:** p16

**UNIPROT ID:** P42771

**Description:** Recombinant Human p16(11-40) Protein with N-terminal human Fc tag

**Background:** This gene generates several transcript variants which differ in their first exons. At least three alternatively spliced variants encoding distinct proteins have been reported, two of which encode structurally related isoforms known to function as inhibitors of CDK4 kinase. The remaining transcript includes an alternate first exon located 20 Kb upstream of the remainder of the gene; this transcript contains an alternate open reading frame (ARF) that specifies a protein which is structurally unrelated to the products of the other variants. This ARF product functions as a stabilizer of the tumor suppressor protein p53 as it can interact with, and sequester, the E3 ubiquitin-protein ligase MDM2, a protein responsible for the degradation of p53. In spite of the structural and functional differences, the CDK inhibitor isoforms and the ARF product encoded by this gene, through the regulatory roles of CDK4 and p53 in cell cycle G1 progression, share a common functionality in cell cycle G1 control. This gene is frequently mutated or deleted in a wide variety of tumors, and is known to be an important tumor suppressor gene. [provided by RefSeq, Sep 2012]

**Species/Host:** HEK293

**Molecular Weight:** The protein has a predicted molecular mass of 29.2 kDa after removal of the signal peptide. The apparent molecular mass of hFc-p16(11-40) is approximately 25-35 kDa due to glycosylation.

**Molecular Characterization:** hFc(Glu99-Ala330) p16(Pro11-Ala40)

**Purity:** The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.

**Formulation & Reconstitution:** Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

**Storage & Shipping:** Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.



Figure 1. Human p16(11-40) Protein, hFc Tag on SDS-PAGE under reducing condition.