

Recombinant Human CDKN2A protein

Cat. No. CDKN2A-655H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CDKN2A protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	167
Description	Cyclin-dependent kinase inhibitors (CDKIs) are proteins that bind to and inhibit the activity of CDKs. Two major classes of CDK inhibitors have been identified. The p16 family (p15, p16, p18 and p19) binds to and inhibits the activities of CDK4 and CDK6. The p21 family (p21, p27, p28 and p57) can bind to broad range of CDK-cyclin complexes and inhibit their activities. CDKIs are capable of suppressing growth, and several lines of evidence strongly suggest that at least some CDKIs may be tumor suppressor proteins. p16-INK4A is the member of p16 family and is encoded by CDKN2A gene in humans. It has three isoforms, which are widely expressed but not detected in brain or skeletal muscle, except that isoform 3 is pancreas-specific. Defects in p16INK4A are a cause of Li-Fraumeni syndrome (LFS) and melanoma-astrocytoma syndrome (MASTS). The TAT transduction peptide can help rHuP16-INK4a with acrossing all kind of biomembranes in vivo and has no effect on the super structure of the protein.
Form	Lyophilized from a 0.2µm filtered concentrated solution in 2 × PBS, pH 7.0.
Molecular Mass	Approximately 18.0 kDa, a single non-glycosylated polypeptide chain containing 167

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	amino acids.
AA Sequence	EPAAGSSMEPSADWLATAAARGRVEEVRLLEAGALPNAPNSYGRRPIQVMMMGS ARVAELLLLHGAEPNCADPATLTRPVHDAAREGFDTLVVLHRAGARLDVRDAWGR LPVDLAEELGHRDVARYLRAAAGGTRGSNHARIDAAEGPSDIPDGYGRKKRRQRRR
Endotoxin	Less than 1 EU/g of rHuP16-INK4a-TAT as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	CDKN2A
Official Symbol	CDKN2A
Synonyms	CDKN2A; cyclin-dependent kinase inhibitor 2A; CDKN2, cyclin dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4) , MLM; ARF; CDK4I; CMM2; INK4; INK4a; MTS1; p14; p16; p16INK4a; p19; p19Arf; CDK4 inhibitor p16-INK4; multiple tumor suppressor 1; cell cycle negative regulator beta; cyclin-dependent kinase 4

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inhibitor A; cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4);
MLM; P14; P16; P19; TP16; CDKN2; INK4A; MTS-1; P14ARF; P19ARF; P16INK4;
P16INK4A; P16-INK4A;

Gene ID [1029](#)

mRNA Refseq [NM_000077](#)

Protein Refseq [NP_000068](#)

MIM [600160](#)

UniProt ID [P42771](#)

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