



Recombinant Human p16-INK4a-TAT

20150227BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	100-422
Size:	25 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	1029
Synonyms:	Cyclin-dependent kinase inhibitor 2A, Cyclin-dependent kinase 4 inhibitor A, CDK4I, MTS-1, Multiple tumor suppressor 2

p16-INK4a is a nuclear protein that regulates the cell cycle by inhibiting cyclin dependent kinase-4 (CDK4) and CDK6. p16-INK4a inhibits CDK activity by binding to the CDK molecules in a manner that interferes with their ability to interact with cyclin D. This activity has the effect of suppressing tumor formation and growth, and of inducing replicative senescence in various normal cells, including stem cells. The expression of p16-INK4a steadily increases with age and tends to accumulate in stem cell compartments. The deletion, rearrangement, or mutation of the p16-INK4a gene is frequently found in melanomas as well as in certain other types of cancer. P16-INK4a and other transcription factors have been introduced into cells by DNA transfection, viral infection, or microinjection. Protein transduction using TAT fusion proteins represents an alternative methodology for introducing transcription factors and other nuclear proteins into primary as well as transformed cells. Recombinant human p16-INK4a-TAT expressed in E. coli is a 18 kDa protein containing 167 amino-acid residues, including the 156 residues of full-length p16-INK4a and a 12-residue C-terminal TAT peptide (GYGRKKRRQRRR).

Sequence

EPAAGSSMEP SADWLATAAA RGRVEEVRL LEAGALPNAP
 NSYGRRPIQV MMMGSARVAE LLLLHGAEPN CADPATLTRP
 VHDAAREGFL DTLVVLHRAG ARLDVRDAWG RLPVDLAEEL
 GHRDVARYLR AAAGGTRGSN HARIDAAEGP SDIPDGYGRK KRRQRRR

Database References

Protein RefSeq:	NP_478104.2
Uniprot ID:	P42771
mRNA RefSeq:	NM_058197.4

Product Specifications

Expressed in	E. coli
Purity	> 95% by SDS-PAGE & HPLC analyses
Tag	TAT-Fusion protein
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	lyophilized
Length (aa):	167
MW:	18 kDa

Biological Activity: Data not available.



AVOID REPEATED FREEZE AND THAW CYCLES!



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Specification/Data Sheet