p16-INK4a-TAT Human E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Human
Other names: Cyclin-dependent kinase inhibitor 2A, Cyclin-dependent kinase 4 inhibitor A, CDK4I, p16INK4A, p16-INK4, Multiple tumor suppressor 1, MTS-1

Cat. No.:

RBG10261005	(5 µg)
RBG10261025	(25 µg)
RBG10261100	(100 µg)

Description

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 an 18.0 kDa protein containing 167 amino-acid residues, including the 155 residues of full-length p16-INK4a and a 12-residue C-terminal TAT peptide (GYGRKKRRQRRR).

Research topic

Oncology

Amino Acid Sequence

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

E. coli

Purity

95%

Biological Activity

Data not available.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

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