



Technical Data Sheet

Recombinant Human Cyclin-Dependent Kinase Inhibitor 2A, Isoform 1-TAT (rHuP16-INK4a-TAT)

Human Cyclin-Dependent Kinase Inhibitor 2A, Isoform 1-TAT

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.

Catalog Number:	RC712-35
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 18.0 kDa, a single non-glycosylated polypeptide chain containing 167 amino acids.
Quantity:	5µg/25µg/1000µg
AA Sequence:	EPAAGSSMEP SADWLATAAA RGRVEEVRAL LEAGALPNAP NSYGRRPIQV MMMGSARVAE LLLLHGAEPN CADPATLTRP VHDAAREGFL DTLVVLHRAG ARLDVRDAWG RLPVDLAEEL GHRDVARYLR AAAGGTRGSN HARIDAAEGP SDIPDGYGRK KRRQRRR
Purity:	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Data is not available.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in 2 × PBS, pH 7.0.
Endotoxin:	Less than 1 EU/µg of rHuP16-INK4a-TAT as determined by LAL method.
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 °C. Further dilutions should be made in appropriate buffered solutions.

Storage:

This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. Avoid repeated freeze/thaw cycles.

Usage:

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