

**ChemWhat Technical Data Sheet (TDS)**

<b>Catalog Number:</b>	601-10
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 16.5 kDa, a single non-glycosylated polypeptide chain containing 156 amino acids.
<b>Quantity:</b>	10µg /50µg /1000µg
<b>AA Sequence:</b>	MEPAAGSSME PSADWLATAA ARGRVEEVRA LLEAGALPNA PNSYGRRPIQ VMMMGSARVA ELLLLHGAEP NCADPATLTR PVHDAAREGF LDTLVVLHRA GARLDVRDAW GRLPVDLAE E LGHRDVARYL RAAAGGTRGS NHARIDAAEG PSDIPD
<b>Purity:</b>	> 96 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Data Not Available.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
<b>Endotoxin:</b>	Less than 1EU/µg of rHuP16-INK4a as determined by LAL method.
<b>Reconstitution:</b>	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.
<b>Shipping:</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage:</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	<b>ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE.</b>

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

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).