

Recombinant Mouse Cdkn1a protein, His-tagged

Cat. No. Cdkn1a-1774M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Cdkn1a aa. (Ser2~Pro159) fused with N-terminal His tag was produced in E. coli cells.
Species	Mouse
Source	E.coli
ProteinLength	Ser2~Pro159
Description	This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein binds to and inhibits the activity of cyclin-cyclin-dependent kinase2 or cyclin-dependent kinase4 complexes, and thus functions as a regulator of cell cycle progression at the G1 pahse. The expression of this gene is tightly controlled by the tumor suppressor protein p53, through which this protein mediates the p53-dependent cell cycle G1 phase arrest in response to a variety of stress stimuli. This protein can interact with proliferating cell nuclear antigen, a DNA polymerase accessory factor, and plays a regulatory role in S phase DNA replication and DNA damage repair. This protein was reported to be specifically cleaved by CASP3-like caspases, which thus leads to a dramatic activation of cyclin-dependent kinase2, and may be instrumental in the execution of apoptosis following caspase activation. Mice that lack this gene have the ability to regenerate damaged or missing tissue. Alternative splicing results in multiple transcript variants.
Form	Freeze-dried powder

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Molecular Mass	21kDa as determined by SDS-PAGE reducing conditions.
Endotoxin	<1.0EU per 1ug (determined by the LAL method)
Purity	>95%
Applications	SDS-PAGE; WB; ELISA; IP; CoIP; Purification; Amine Reactive Labeling.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
Concentration	200µg/mL
Storage buffer	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5%Trehalose and Proclin300.
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Isoelectric Point	9.2
GENE INFORMATION	
Gene Name	Cdkn1a cyclin-dependent kinase inhibitor 1A (P21) [Mus musculus (house mouse)]
Official Symbol	Cdkn1a

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Synonyms	Cdkn1a; cyclin-dependent kinase inhibitor 1A (P21); P21; CDKI; CIP1; SDI1; Waf1; mda6; CAP20; Cdkn1; p21WAF; p21Cip1; cyclin-dependent kinase inhibitor 1; CDK-interacting protein 1; melanoma differentiation-associated protein
Gene ID	12575
mRNA Refseq	NM_001111099.2
Protein Refseq	NP_001104569.1
UniProt ID	P39689
SDS-PAGE	