abcam

Product datasheet

Recombinant Human p21 protein (denatured) ab134524

1 Image

Description

Product name	Recombinant Human p21 protein (denatured)
Purity	> 85 % SDS-PAGE.
Expression system	Escherichia coli
Accession	P38936
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MGSSHHHHHHSSGLVPRGSHMSEPAGDVRQNPCGSKA CRRLFGPVDSEQL SRDCDALMAGCIQEARERWNFDFVTETPLEGDFAWERV RGLGLPKLYLPT GPRRGRDELGGGRRPGTSPALLQGTAEEDHVDLSLSCTL VPRSGEQAEGS PGGPGDSQGRKRRQTSMTDFYHSKRRLIFSKRKP
Predicted molecular weight	20 kDa including tags
Amino acids	1 to 164
Tags	His tag N-Terminus
Description	Recombinant Human p21 protein

Specifications

Our **Abpromise guarantee** covers the use of **ab134524** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Liquid

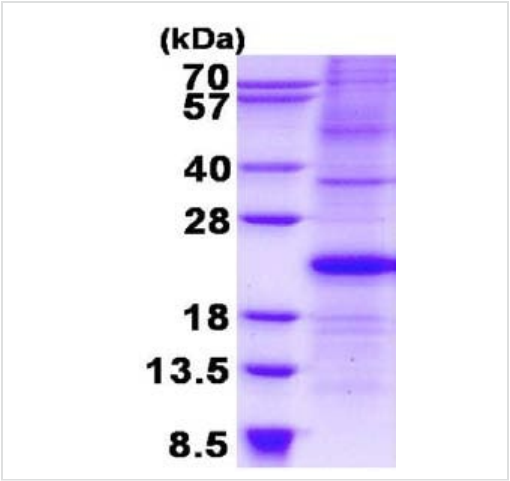
Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. pH: 8.00 Constituents: 12.01% Urea, 0.32% Tris HCl, 10% Glycerol (glycerin, glycerine), 0.58% Sodium chloride

General Info

Function	May be the important intermediate by which p53/TP53 mediates its role as an inhibitor of cellular proliferation in response to DNA damage. Binds to and inhibits cyclin-dependent kinase activity, preventing phosphorylation of critical cyclin-dependent kinase substrates and blocking cell cycle progression. Functions in the nuclear localization and assembly of cyclin D-CDK4 complex and promotes its kinase activity towards RB1. At higher stoichiometric ratios, inhibits the kinase activity of the cyclin D-CDK4 complex.
Tissue specificity	Expressed in all adult human tissues, with 5-fold lower levels observed in the brain.
Sequence similarities	Belongs to the CDI family.
Domain	The PIP-box K+4 motif mediates both the interaction with PCNA and the recuitment of the DCX(DTL) complex: while the PIP-box interacts with PCNA, the presence of the K+4 submotif, recruits the DCX(DTL) complex, leading to its ubiquitination. The C-terminal is required for nuclear localization of the cyclin D-CDK4 complex.
Post-translational modifications	Phosphorylation of Thr-145 by Akt or of Ser-146 by PKC impairs binding to PCNA. Phosphorylation at Ser-114 by GSK3-beta enhances ubiquitination by the DCX(DTL) complex. Ubiquitinated by MKRN1; leading to polyubiquitination and 26S proteasome-dependent degradation. Ubiquitinated by the DCX(DTL) complex, also named CRL4(CDT2) complex, leading to its degradation during S phase or following UV irradiation. Ubiquitination by the DCX(DTL) complex is essential to control replication licensing and is PCNA-dependent: interacts with PCNA via its PIP-box, while the presence of the containing the 'K+4' motif in the PIP box, recruit the DCX(DTL) complex, leading to its degradation.
Cellular localization	Cytoplasm. Nucleus.

Images



SDS-PAGE - Recombinant Human p21 protein (denatured) (ab134524)

15% SDS-PAGE analysis of 3 µg ab134524.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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