

Product datasheet

Mouse p21 Matched Antibody Pair Kit ab212072

Recombinant

1 References 2 Images

Overview

<b>Product name</b>	Mouse p21 Matched Antibody Pair Kit
<b>Detection method</b>	Colorimetric
<b>Assay type</b>	ELISA set
<b>Sensitivity</b>	1.65 pg/ml
<b>Range</b>	39 pg/ml - 5000 pg/ml
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse
<b>Product overview</b>	<p>Mouse p21 Matched Antibody Pair Kits include a capture and a biotinylated detector antibody pair, along with a calibrated protein standard, suitable for sandwich ELISA. The Matched Antibody Pair Kit can be used to quantify native and recombinant mouse p21.</p>

Optimization of the kit reagents to sample type, immunoassay format or instrumentation may be required. Guidelines for use of this kit in a standard 96-well microplate sandwich ELISA using HRP/TMB system of colorimetric detection is described in this assay procedure for the purposes of quantification.

Protocol information and tips on the use of the Matched Antibody Pair kits for sandwich ELISA can be found on our [website](#). An accessory pack can be purchased which includes buffer reagents required to perform 10 x 96-well plate sandwich ELISAs ([ab210905](#)).

For additional information on the performance of the antibody pair used in this kit, please see our equivalent SimpleStep ELISA kit [ab205576](#). Please note that while the antibody pair is the same provided in the corresponding SimpleStep ELISA Kit, due to differences in their formulation, this antibody pair cannot be used with the consumables provided with our SimpleStep ELISA Kits.

<b>Tested applications</b>	<b>Suitable for:</b> ELISA, IA
<b>Platform</b>	Reagents

Properties

<b>Storage instructions</b>	Store at -20°C. Please refer to protocols.
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Components	5 x 96 tests
Mouse p21 Capture Antibody	1 x 50µg
Mouse p21 Detector Antibody	1 x 12.5µg
Mouse p21 Lyophilized Protein	1 vial

**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 recruitment 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.

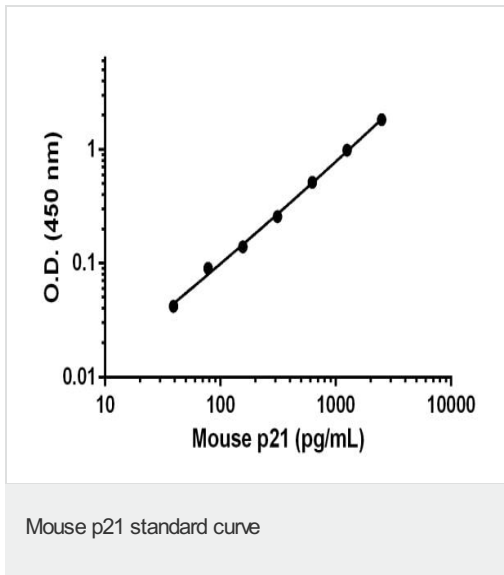
**Cellular localization** Cytoplasm. Nucleus.

## Applications

**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab212072 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.




Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration.
IA		Use at an assay dependent concentration.

## Images



Standard calibration curve. Background subtracted values are graphed.

Powered by recombinant antibodies

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

Sandwich ELISA - Mouse p21 Matched Antibody Pair Kit (ab212072)

To learn more about the advantages of recombinant antibodies see [here](#).

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

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