Datasheet for ABIN967851

anti-CDKN1B antibody (AA 1-197)

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Overview

Quantity:	150 µg
Target:	CDKN1B
Binding Specificity:	AA 1-197
Reactivity:	Human, Mouse, Rat, Dog, Chicken, Frog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CDKN1B antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Mouse Kip1 aa. 1-197
Clone:	57-Kip1-p27
Isotype:	IgG1
Cross-Reactivity:	Human, Dog (Canine), Rat (Rattus), Chicken, Frog
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Source of all serum proteins is from USDA inspected abattoirs located in the United States. 4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

Product Details

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	CDKN1B
Alternative Name:	p27 Kip1 (CDKN1B Products)
Background:	Kip1 is a cyclin-dependent kinase (cdk) inhibitor that was identified as a result of its role in TGFbeta-induced G1 phase arrest and cell-cell contact. In vitro , p27 [Kip1] binds tightly to Cyclin D-Cdk4, Cyclin E-Cdk2, and Cyclin A-Cdk2 complexes and inhibits their activity. In normal cells, Kip1 is sequestered and its activity gradually decreases as cells reach S phase. The addition of TGF-beta in early G1 blocks this decline in activity, by preventing the sequestration of Kip1. TGF-beta also reduces the levels of Cdk4. Kip1 preferentially binds Cyclin D-Cdk4, but the lower levels of Cdk4 in TGF-beta treated cells allow Kip1 to be available for binding to Cyclin E-Cdk2 and Cyclin A-Cdk2. Kip1 is structurally related to Cip1/WAF1, having a similar 60 amino acid sequence in the N-terminal region. A 52 amino acid Kip1 peptide (residues 28-79) from this region is sufficient to inhibit cdk activity in vitro. This antibody is routinely tested by western blot analysis.
Molecular Weight:	27 kDa
Pathways:	Cell Division Cycle, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Positive Regulation of Peptide Hormone Secretion, Negative Regulation of Hormone Secretion, Sensory Perception of Sound, Mitotic G1-G1/S Phases, DNA Replication, Positive Regulation of Endopeptidase Activity, Synthesis of DNA, Autophagy

Application Details

Comment:	Related Products: ABIN968535, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide

Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:

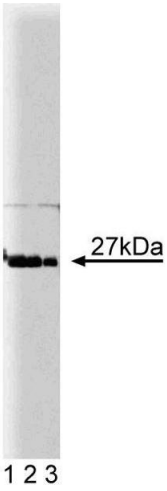
Barnouin, Dubuisson, Child, Fernandez de Mattos, Glassford, Medema, Mann, Lam: "H2O2 induces a transient multi-phase cell cycle arrest in mouse fibroblasts through modulating cyclin D and p21Cip1 expression." in: **The Journal of biological chemistry**, Vol. 277, Issue 16, pp. 13761-70, (2002) (PubMed).

Williamson, Dadmanesh, Koeffler: "BRCA1 transactivates the cyclin-dependent kinase inhibitor p27(Kip1)." in: **Oncogene**, Vol. 21, Issue 20, pp. 3199-206, (2002) (PubMed).

Frey, Clark, Leontieva, Uronis, Black, Black: "Protein kinase C signaling mediates a program of cell cycle withdrawal in the intestinal epithelium." in: **The Journal of cell biology**, Vol. 151, Issue 4, pp. 763-78, (2000) (PubMed).

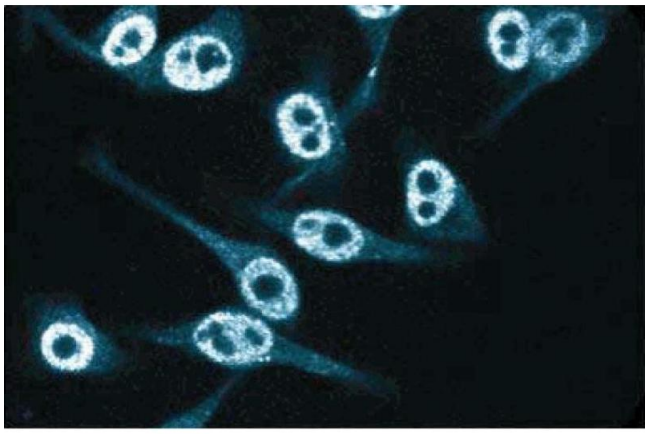
Polyak, Kato, Solomon, Sherr, Massague, Roberts, Koff: "p27Kip1, a cyclin-Cdk inhibitor, links transforming growth factor-beta and contact inhibition to cell cycle arrest." in: **Genes & development**, Vol. 8, Issue 1, pp. 9-22, (1994) (PubMed).

Polyak, Lee, Erdjument-Bromage, Koff, Roberts, Tempst, Massagué: "Cloning of p27Kip1, a cyclin-dependent kinase inhibitor and a potential mediator of extracellular antimitogenic signals." in: **Cell**, Vol. 78, Issue 1, pp. 59-66, (1994) (PubMed).



Western Blotting

Image 1. Western blot analysis of p27[Kip1] on HeLa cell lysate. Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1:10000 dilution of anti-p27[Kip1].



Immunofluorescence

Image 2. Immunofluorescent staining of HeLa cells.

Image 3.

Please check the product details page for more images. Overall 4 images are available for ABIN967851.