

CDKN1B Antibody

Purified Mouse Monoclonal Antibody (Mab) Catalog # AM8433b

Specification

CDKN1B Antibody - Product Information

Application	IHC-P, WB,E
Primary Accession	<u>P46527</u>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	lgG1,κ
Calculated MW	22073

CDKN1B Antibody - Additional Information

Gene ID 1027

Other Names Cyclin-dependent kinase inhibitor 1B, Cyclin-dependent kinase inhibitor p27, p27Kip1, CDKN1B, KIP1

Target/Specificity This CDKN1B antibody is generated from a mouse immunized with CDKN1B recombinant protein.

Dilution IHC-P~~1:25 WB~~1:1000 E~~Use at an assay dependent concentration.

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions CDKN1B Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CDKN1B Antibody - Protein Information

Name CDKN1B {ECO:0000303|PubMed:20824794}

Function Important regulator of cell cycle progression. Inhibits the kinase activity of CDK2 bound to cyclin A, but has little inhibitory activity on CDK2 bound to SPDYA (PubMed:<u>28666995</u>). Involved in G1 arrest. Potent inhibitor of cyclin E- and cyclin A-CDK2 complexes. Forms a complex with



cyclin type D-CDK4 complexes and is involved in the assembly, stability, and modulation of CCND1-CDK4 complex activation. Acts either as an inhibitor or an activator of cyclin type D-CDK4 complexes depending on its phosphorylation state and/or stoichometry.

Cellular Location

Nucleus. Cytoplasm. Endosome. Note=Nuclear and cytoplasmic in quiescent cells. AKT- or RSK-mediated phosphorylation on Thr-198, binds 14-3-3, translocates to the cytoplasm and promotes cell cycle progression. Mitogen-activated UHMK1 phosphorylation on Ser-10 also results in translocation to the cytoplasm and cell cycle progression. Phosphorylation on Ser-10 facilitates nuclear export. Translocates to the nucleus on phosphorylation of Tyr-88 and Tyr-89. Colocalizes at the endosome with SNX6; this leads to lysosomal degradation (By similarity)

Tissue Location

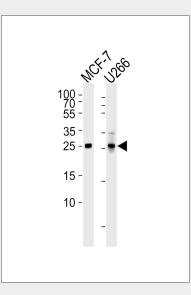
Expressed in kidney (at protein level) (PubMed:15509543). Expressed in all tissues tested (PubMed:8033212) Highest levels in skeletal muscle, lowest in liver and kidney (PubMed:8033212).

CDKN1B Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

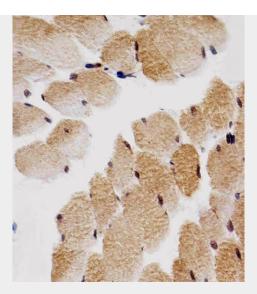
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- <u>Cell Culture</u>

CDKN1B Antibody - Images



Western blot analysis of lysates from MCF-7, U266 cell line (from left to right), using CDKN1B Antibody(Cat. #AM8433b). AM8433b was diluted at 1:1000 at each lane. A goat anti-mouse IgG H&L(HRP) at 1:3000 dilution was used as the secondary antibody. Lysates at 35µg per lane.





Immunohistochemical analysis of paraffin-embedded H. skeletal muscle section using CDKN1B Antibody(Cat#AM8433b). AM8433b was diluted at 1:25 dilution. A peroxidase-conjugated goat anti-mouse IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.

CDKN1B Antibody - Background

Important regulator of cell cycle progression. Involved in G1 arrest. Potent inhibitor of cyclin E- and cyclin A-CDK2 complexes. Forms a complex with cyclin type D-CDK4 complexes and is involved in the assembly, stability, and modulation of CCND1- CDK4 complex activation. Acts either as an inhibitor or an activator of cyclin type D-CDK4 complexes depending on its phosphorylation state and/or stoichometry.

CDKN1B Antibody - References

Polyak K., et al.Cell 78:59-66(1994). Pietenpol J.A., et al.Cancer Res. 55:1206-1210(1995). Kalnine N., et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases. Montagnoli A., et al.Genes Dev. 13:1181-1189(1999). Ishida N., et al.J. Biol. Chem. 275:25146-25154(2000).