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CDKN1B / p27 Kip1 Antibody (clone 4B4-E6)

Mouse Monoclonal Antibody
Catalog # ALS14033

Specification

CDKN1B / p27 Kip1 Antibody (clone 4B4-E6) - Product Information

Application	**WB, IF, IHC**
Primary Accession	P46527
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**22kDa KDa**

CDKN1B / p27 Kip1 Antibody (clone 4B4-E6) - Additional Information

Gene ID 1027

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

Target/Specificity
Human p27Kip1

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions
CDKN1B / p27 Kip1 Antibody (clone 4B4-E6) is for research use only and not for use in diagnostic or therapeutic procedures.

CDKN1B / p27 Kip1 Antibody (clone 4B4-E6) - 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:28666995). 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)

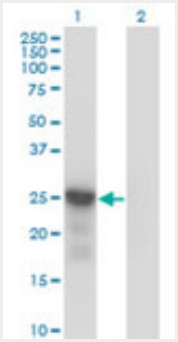
Tissue Location
Expressed in kidney (at protein level) (PubMed:15509543). Expressed in all tissues tested (PubMed:8033212) Highest levels in skeletal muscle, lowest in liver and kidney (PubMed:8033212).

CDKN1B / p27 Kip1 Antibody (clone 4B4-E6) - Protocols

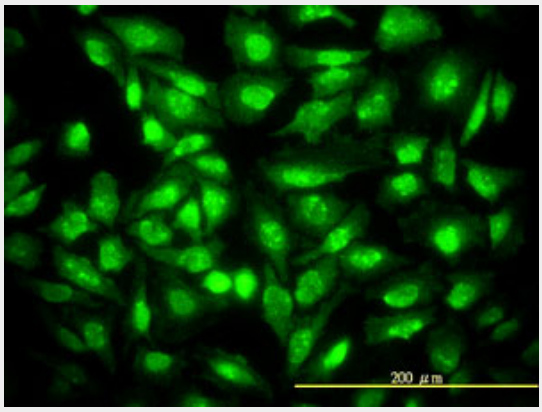
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CDKN1B / p27 Kip1 Antibody (clone 4B4-E6) - Images



Western blot of CDKN1B expression in transfected 293T cell line by CDKN1B monoclonal antibody...



Immunofluorescence of monoclonal antibody to CDKN1B on HeLa cell. [antibody concentration 10 ug/ml]

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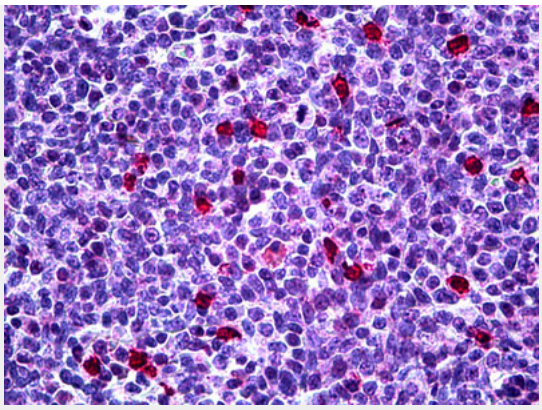

Anti-CDKN1B / p27 Kip1 antibody IHC of human tonsil.

CDKN1B / p27 Kip1 Antibody (clone 4B4-E6) - 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 / p27 Kip1 Antibody (clone 4B4-E6) - References

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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).