

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 stoichiometry.

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

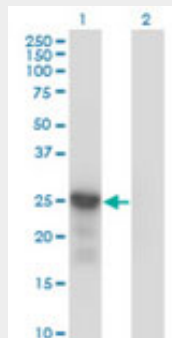
Expressed in kidney (at protein level) (PubMed:15509543). Expressed in all tissues tested (PubMed:8033212) Highest levels in skeletal muscle, lowest in liver and kidney (PubMed:8033212).

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

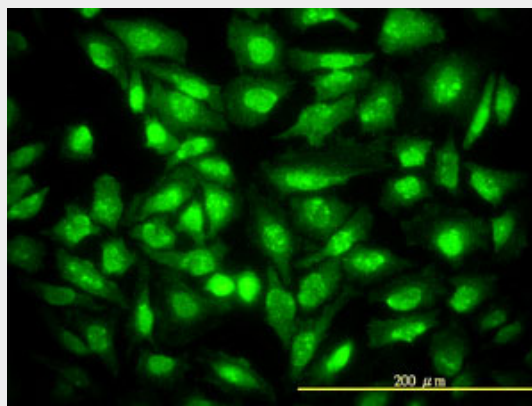
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

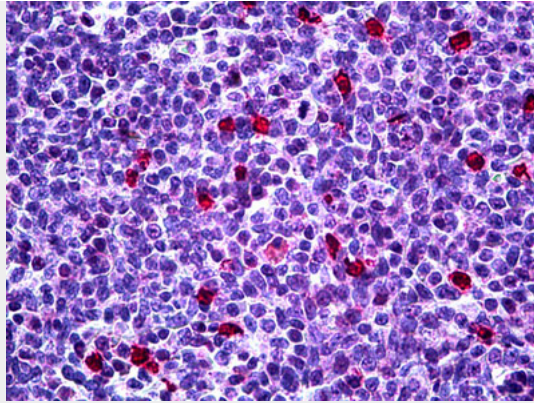
CDKN1B / p27 Kip1 Antibody (clone 4B4-E6) - Images



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]



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 stoichiometry.

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