[KD Validated] Anti-CDKN1B Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R020281

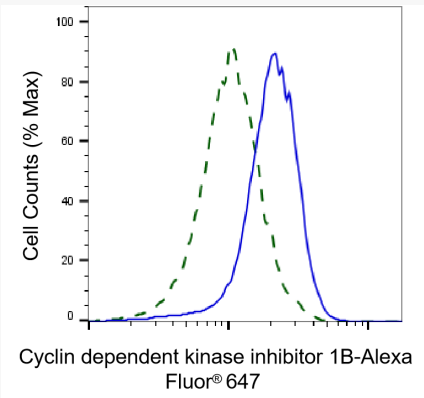
Product Information

Application	WB, FC, IF (Cell)/ICC
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000
Host	Rabbit
Clonality	Monoclonal
Clone No.	70B57G02
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human p27 KIP 1
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-CDKN1B Rabbit mAb [70B57G02] is for research use only and not for use in diagnostic or therapeutic procedures.

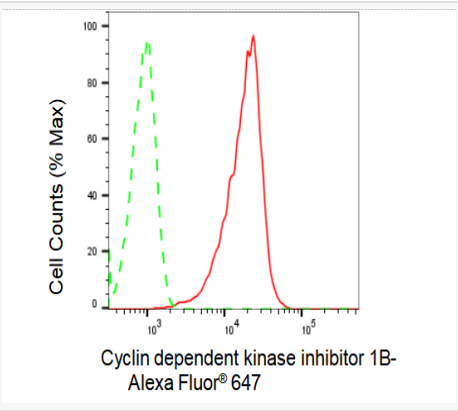
Protein Information

Synonyms	CDKN1B; Cyclin Dependent Kinase Inhibitor 1B; KIP1; P27KIP1; Cyclin-Dependent Kinase Inhibitor 1B (P27, Kip1); Cyclin-Dependent Kinase Inhibitor 1B; Cyclin-Dependent Kinase Inhibitor P27; P27Kip1; CDKN4; MEN1B; MEN4; P27.
Calculated MW	Calculated MW: 22 kDa, Observed MW: 27 kDa
Uniprot ID	P46527
Gene ID	1027
Background	This gene encodes a cyclin-dependent kinase inhibitor, which shares a limited similarity with CDK inhibitor CDKN1A/p21. The encoded protein binds to and prevents the activation of cyclin E-CDK2 or cyclin D-CDK4 complexes, and thus controls the cell cycle progression at G1. The degradation of this protein, which is triggered by its CDK dependent phosphorylation and subsequent ubiquitination by SCF complexes, is required for the cellular transition from quiescence to the proliferative state. Mutations in this gene are associated with multiple endocrine neoplasia type IV (MEN4). [provided by RefSeq, Apr 2014]
Cellular Location	Nucleus Cytoplasm Endosome 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

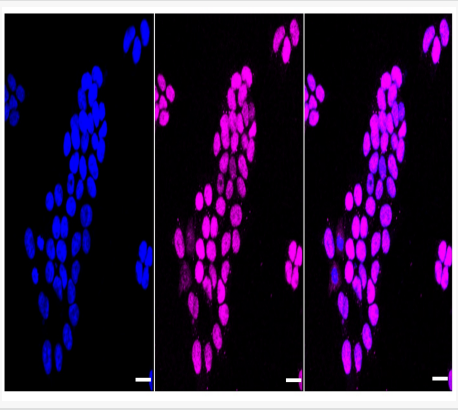
Validation Images



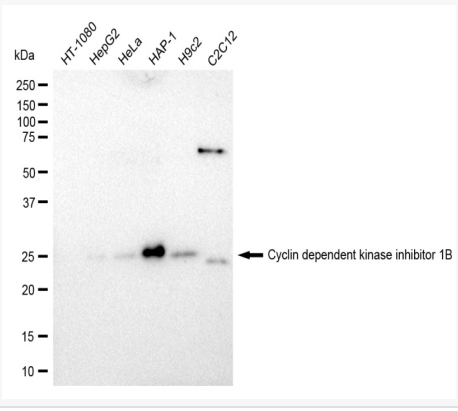
Validation of Cyclin dependent kinase inhibitor 1B knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HSHC cells were stained with Cyclin dependent kinase inhibitor 1B antibody (R020281, 1:2,000) and analyzed using BD flow cytometer.



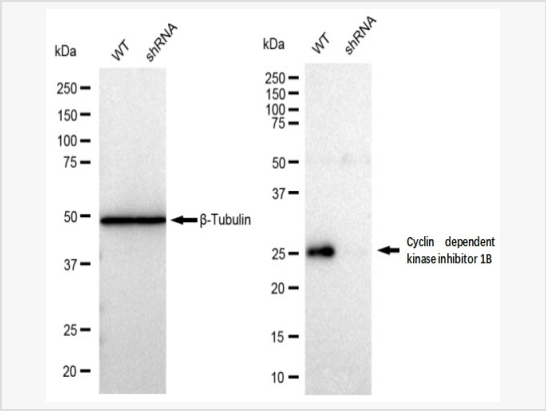
Flow cytometric analysis of Cyclin dependent kinase inhibitor 1B expression in HAP-1 cells using Cyclin dependent kinase inhibitor 1B antibody (R020281, 1:2,000). Green, isotype control; red, Cyclin dependent kinase inhibitor 1B.



Immunocytochemical staining of HAP-1 cells with Cyclin dependent kinase inhibitor 1B antibody (R020281, 1:1,000). Nuclei were stained blue with DAPI; Cyclin dependent kinase inhibitor 1B was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



Western blotting analysis using Cyclin dependent kinase inhibitor 1B antibody (R020281). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Cyclin dependent kinase inhibitor 1B antibody (R020281, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:10,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using Cyclin dependent kinase inhibitor 1B antibody (R020281). Cyclin dependent kinase inhibitor 1B expression in wild type (WT) and cyclin dependent kinase inhibitor 1B shRNA knockdown (KD) HeLa cells with 30µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with Cyclin dependent kinase inhibitor 1B antibody (R020281, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.