Signalway

P16
Antibody

#24348

Catalog Number: 24348-1, 24348-2

Amount: 50µg/50µl, 100µg/100µl

Swiss-Prot No. :P42771

Form of Antibody: Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl,0.02% sodium azide and 50% glycerol.

Storage/Stability: Store at -20℃/1 year

Immunogen: The antiserum was produced against synthesized peptide derived from Human P16
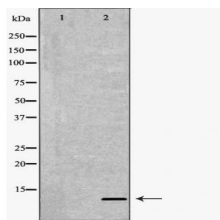
Purification: The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Specificity/Sensitivity:P16 Antibody detects endogenous levels of total P16

Reactivity: Human

Applications:

Predicted MW:11kd   WB:1:500-2000   IHC:1:50-200

Western blot analysis of extracts of various cell lines, using P16 antibody.

Background : The division cycle of eukaryotic cells is regulated by a family of protein kinases known as the cyclin-dependent kinases (CDKs). The sequential activation of individual members of this family and their consequent phosphorylation of critical substrates promotes orderly progression through the cell cycle. It has been reported that p16 binds to CDK4 and inhibits the catalytic activity of the CDK4/cyclin D enzymes. p16 seems to act in a regulatory feedback circuit with CDK4, D-type cyclins and retinoblastoma protein . The INK4 (inhibitor of cyclin-dependent kinase 4) family consists of four tumor-suppressor proteins: p15(INK4B), p16(INK4A), p18(INK4C), and p19(INK4D). While their sequences and structures are highly homologous, they show appreciable differences in conformational flexibility, stability, and aggregation tendency . Cell cycle arrest at the G1 checkpoint allows completion of critical macromolecular events prior to S phase. Regulators of the G1 checkpoint include an inhibitor of cyclin-dependent kinase, p16INK4; two tumor-suppressor proteins, p53 and RB and cyclin D1. p16INK4 is a tumor-suppressor protein and that genetic and epigenetic abnormalities in genes controlling the G1 checkpoint can lead to both escape from senescence and cancer formation .