

Product Specification Sheet
Mouse p161 protein Antibodies

□ Cat. # P162-M

Mouse Monoclonal Anti-mouse p16 protein IgG

SIZE: 100 ug

The p16 protein (p16) is a cyclin-dependent kinase (CDK) inhibitor that decelerates the cell cycle by inactivating the CDKs that phosphorylate retinoblastoma protein (Rb). Protein p16 pathway mechanism in cell cycle begins when cyclin D which is a kinase activator binds itself to CDK4/ CDK6. upon the interaction CDK undergoes conformational change and the complex formed triggers pRB phosphorylation. then, pRB which undergoes conformational change and is now functionally inactivated since its size, shape and charge is different hence it can not fit as before. However, the phosphorylated pRB releases a transcription factor E2F that causes induction of p16 expression. Then, p16 proceeds to bind all CDK4/CDK6 hence, cyclin D is no longer protected by association with its CDK4/CDK6 partner. p16 appears in many pathway mechanisms including DNA damage checkpoint, G1/S checkpoint and many others.

Source of Antigen and Antibodies

Antigen	Recombinant mouse p16 protein
Antibody host/type	Mouse, monoclonal affinity purified IgG2a, Cat # P162-M in PBS, pH 7.4, 0.05% azide and 0.1% BSA.
Secondary Ab	Cat # 40320, rabbit anti-mouse IgG-HRP (AP, biotin, FITC conjugates also available).
Negative Control Ab	Non-immune mouse IgG (Cat # 20008-1) to be used as -ve control for ELISA, WB, IHC etc.

Form & Storage

Aff Pure (purified)

□ solution, □ lyophilized

Reconstitute powder in 100 ul water

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

Western Blotting (1-2 ug/ml using ECL. HeLa cells or other cells expressing p16 protein. Mol wt ~16 Kda.

ELISA (0.1-1 ug/ml as detecting antibody).

Histochemistry: We recommend the use of 2-10 ug/ml of antibody in paraformaldehyde-fixed, paraffin embedded sections.

Specificity & Cross-reactivity

P162-M reacts with mouse p16 protein and has crossreactivity with rat and human. Antibody crossreactivity in various other species is not established. For human p16 protein study, we recommend antibody #P161-M that is raised to human full length protein. HeLa Cell lysate and SASO-2 cell lysates are also available for protein control.

General References: Hunter T (1993) Cell 75, 839-841; Serrano M (1993) Nature 366, 704-707; Polyak K (1994) Genes Devel. 8, 9-22

*This product is for In vitro research use only.

Related material available from ADI

Ant-NGF, NT-3, NT-4, BDNF, Trk receptors, EGF, FGF and other growth factors

P162-M

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