Technical Data Sheet

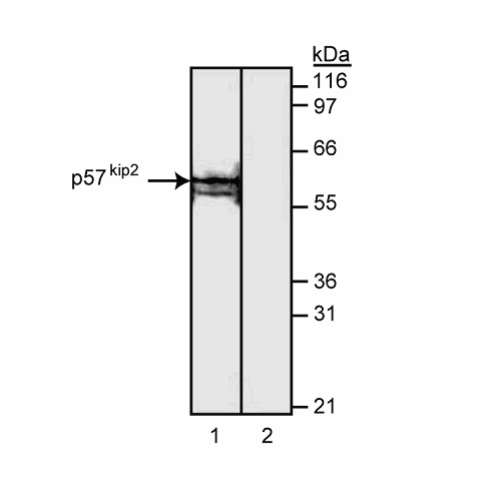
Purified Mouse Anti-Human p57[Kip2]

Product Information

Material Number:	**556346**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	A120-1
Immunogen:	p57[Kip2] Recombinant Human
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Target MW:	57 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

Cyclin dependent kinase inhibitors (CdkIs) inhibit progression through the cell cycle by binding to cyclins, Cdks, or cyclin-Cdk complexes. CdkIs are classified into two groups based on protein structure. p57[Kip2] belongs to a group that also includes p27[Kip1] and p21 (also known as Sdi1, Cip1, Waf1 and Pic1). Members of this group have a homologous amino-terminal Cdk inhibitory domain. Members of the second group [p16 (INK4A), p15 (INK4B), p18 (INK4C), and p19 (INK4D)] contain ankyrin repeat motifs. p57[Kip2] is a potent, tight-binding inhibitor of several G1 and S phase cyclin-Cdk complexes including cyclin E-Cdk2, cyclin D2-Cdk4, and cyclin A-Cdk2. It inhibits the mitotic cyclin B1-Cdk1 complex to a lesser extent. mRNA studies suggest that p57[Kip2] expression is tissue-specific, the highest levels have been found in embryonic and adult skeletal muscle, heart, kidney, lung, eye and brain. This is in contrast to the widespread tissue expression of p27[Kip1] and p21 mRNA. The expression of p57[Kip2] to primarily terminally differentiated cells suggests that p57[Kip2] may play a specialized role in cell cycle control. Clone A120-1 reacts with human p57[Kip2]. Recombinant human p57[Kip2] was used as immunogen.



Western blot analysis of p57[Kip2]. Lane 1, SJCRH30 human rhabdomyosarcoma cell lysate was probed with anti-p57[Kip2]. *In lane 2, mouse IgG1 isotype (negative) control. p57[Kip2] is identified as an ~57 kDa doublet.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4°C.

Application Notes

Application

Western blot	Routinely Tested

Recommended Assay Procedure:

Applications for clone A120-1 include western blot analysis (1-2 µg/ml). SJCRH30 human rhabdomyosarcoma cells are suggested as a positive control (ATCC CRL-2061).

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Grana X, Reddy EP. Cell cycle control in mammalian cells: role of cyclins, cyclin dependent kinases (CDKs), growth suppressor genes and cyclin-dependent kinase inhibitors (CKIs). *Oncogene.* 1995; 11(2):211-219.(Biology)

Lee MH, Reynisdottir I, Massague J. Cloning of p57KIP2, a cyclin-dependent kinase inhibitor with unique domain structure and tissue distribution. *Genes Dev.* 1995; 9(6):639-649.(Biology)

Matsuoka S, Edwards MC, Bai C. p57KIP2, a structurally distinct member of the p21CIP1 Cdk inhibitor family, is a candidate tumor suppressor gene. *Genes Dev.* 1995; 9(6):650-662.(Biology)