

Technical Data Sheet

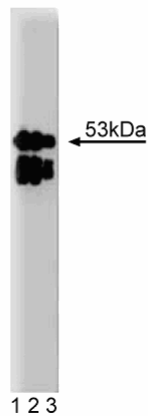
Purified Mouse Anti-LAP2

Product Information

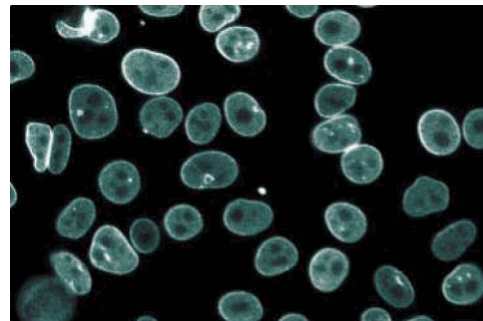
Material Number:	611000
Alternate Name:	LAP2 β ; Lamina-Associated Polypeptides
Size:	50 μ g
Concentration:	250 μ g/ml
Clone:	27/LAP2
Immunogen:	Rat LAP2 aa. 34-156
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Mouse Tested in Development: Rat, Human, Dog
Target MW:	53 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and \leq 0.09% sodium azide.

Description

A specialized extension of the ER, the nuclear envelope (NE) forms the nuclear compartment boundary in eukaryotic cells. It contains numerous pore complexes and the nucleoplasmic side is linked to nuclear lamina. The nuclear lamina composes the structural framework for the NE and serves as a chromatin anchor site, thus, playing a major role in interphase nuclear organization. Many proteins are associated with lamina, particularly the LAPs (Lamina-Associated Polypeptides). LAP2 (also known as LAP2 β) is a hydrophilic protein with a single transmembrane segment near the C-terminus. Thus, it has been defined as a type II integral membrane protein with the majority of its structure exposed to the nucleoplasm. LAP2 binding to lamins contributes to the attachment of the nuclear lamina to the inner nuclear membrane. LAP2 also binds to chromatin, implying its role in chromosomal organization during mitosis. Mitotic phosphorylation of LAP2 regulates its binding to lamins and chromosomes during the disassembly and reassembly of mitosis. Thus, LAP2 is a nuclear protein that plays a role in the organization of the NE during cell cycle progression.



Western blot analysis of LAP2 on a RSV-3T3 cell lysate. Lane 1: 1:5000, lane 2: 1:10,000, lane 3: 1:20,000 dilution of the mouse anti-LAP2 antibody.



Immunofluorescence staining of HeLa cells (Human cervical epitheloid carcinoma; ATCC CCL-2.2).

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20°C .

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharming/en/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Dechat T, Gotzmann J, Stockinger A, et al. Detergent-salt resistance of LAP2alpha in interphase nuclei and phosphorylation-dependent association with chromosomes early in nuclear assembly implies functions in nuclear structure dynamics. *EMBO J.* 1998; 17(16):4887-4902.(Biology)

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