Technical Data Sheet

Purified Mouse Anti-Lamin A/C

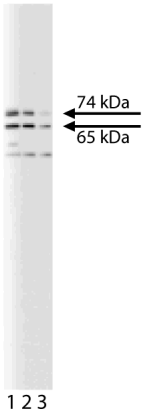
Product Information

Material Number:	**612162**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	14/LaminAC
Immunogen:	Human Lamin A/C aa. 398-490
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Chicken, Dog, Mouse, Rat
Target MW:	65 & 74 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The nuclear envelope (NE) is a specialized extension of the ER that contains numerous pore complexes interconnected with the 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. The major component of nuclear lamina are intermediate filament-like proteins called lamins. In mammalian somatic cells, there are three major lamins, A, B1, and C, and two minor lamins, B2 and A10. A-type lamins (A, A10, and C) are encoded by a single gene and are produced by alternative splicing, while B-type lamins (B1 and B2) are encoded by separate genes. B-type lamins are found in all nucleated somatic cells, while the expression of A-type lamins are developmentally regulated. Mice lacking lamin A show no overt abnormalities until postnatal development when perturbations in nuclear envelop structure correlate with the appearance of muscular dystrophy. In addition, lamin A is mutated in lipodystrophy, a disorder characterized by reduction in subcutaneous adipose tissue. Thus, lamin A and C may be important for nuclear envelope formation during postnatal cell differentiation.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of Lamin A/C on a HeLa lysate.
Lane 1: 1:1000, Lane 2: 1:2000, Lane 3: 1:4000 dilution of the anti- Lamin A/C antibody.

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

Suggested Companion Products

Catalog Number	Name	Size	Clone
611449	HeLa Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Igs	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/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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

McKeon FD, Kirschner MW, Caput D. Homologies in both primary and secondary structure between nuclear envelope and intermediate filament proteins. *Nature.* 1986; 319(6053):463-468.(Biology)
Shackleton S, Lloyd DJ, Jackson SN, et al. LMNA, encoding lamin A/C, is mutated in partial lipodystrophy. *Nat Genet.* 2000; 24(2):153-156.(Biology)
Sullivan T, Escalante-Alcalde D, Bhatt H, et al. Loss of A-type lamin expression compromises nuclear envelope integrity leading to muscular dystrophy. *J Cell Biol.* 1999; 147(5):913-920.(Biology)