

Lamin B1 (119D5-F1): sc-56143

BACKGROUND

A unique family of cysteine proteases has been described that differs in sequence, structure and substrate specificity from any previously described protease family. This family, termed CED-3/ICE, function as key components of the apoptotic machinery and act to destroy specific target proteins which are critical to cellular longevity. Nuclear Lamins are critical to maintaining the integrity of the nuclear envelope and cellular morphology as components of the nuclear lamina, a fibrous layer on the nucleoplasmic side of the inner nuclear membrane, which is thought to provide a framework for the nuclear envelope and may also interact with chromatin. B-type Lamin, such as Lamin B1, undergo a series of modifications, such as farnesylation and phosphorylation. Lamin B1 is a 586 amino acid protein that is encoded by a gene which, when mutated, is involved in the pathogenesis of autosomal dominant adult-onset leukodystrophy (ADLD), a disease characterized by cerebellar dysfunction and symmetric demyelination of the central nervous system.

CHROMOSOMAL LOCATION

Genetic locus: LMNB1 (human) mapping to 5q23.2; Lmnb1 (mouse) mapping to 18 D3.

SOURCE

Lamin B1 (119D5-F1) is a mouse monoclonal antibody raised against lamins purified from liver of rat origin.

PRODUCT

Each vial contains 50 µg IgG₁ in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Lamin B1 (119D5-F1) is recommended for detection of Lamin B1 of mouse, rat, human, bovine and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Lamin B1 siRNA (h): sc-29386, Lamin B1 siRNA (m): sc-35779, Lamin B1 shRNA Plasmid (h): sc-29386-SH, Lamin B1 shRNA Plasmid (m): sc-35779-SH, Lamin B1 shRNA (h) Lentiviral Particles: sc-29386-V and Lamin B1 shRNA (m) Lentiviral Particles: sc-35779-V.

Molecular Weight of Lamin B1: 67 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Y79 cell lysate: sc-2240 or F9 cell lysate: sc-2245.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

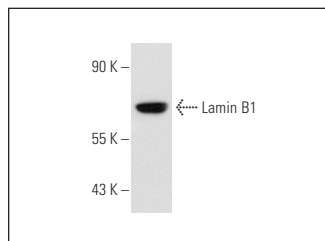
PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Lamin B1 (119D5-F1): sc-56143. Western blot analysis of Lamin B1 expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

- Kolltveit, K.M., et al. 2008. Expression of SH2D2A in T-cells is regulated both at the transcriptional and translational level. *Mol. Immunol.* 45: 2380-2390.
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- Krawczyk, M.C., et al. 2015. Memory reconsolidation of an inhibitory avoidance task in mice involves cytosolic ERK2 bidirectional modulation. *Neuroscience* 294: 227-237.
- Carter, D.M., et al. 2015. Proteomic identification of nuclear processes manipulated by cytomegalovirus early during infection. *Proteomics* 15: 1995-2005.
- Dai, T., et al. 2017. Malvidin attenuates pain and inflammation in rats with osteoarthritis by suppressing NF κ B signaling pathway. *Inflamm. Res.* 66: 1075-1084.
- Yang, P.M., et al. 2017. Lycopene inhibits NF κ B activation and adhesion molecule expression through Nrf2-mediated heme oxygenase-1 in endothelial cells. *Int. J. Mol. Med.* 39: 1533-1450.
- Mitani, T., et al. 2017. Enzymatically synthesized glycogen inhibits colitis through decreasing oxidative stress. *Free Radic. Biol. Med.* 106: 355-367.
- Wang, J.L., et al. 2017. TGF β induced factor homeobox 1 promotes colorectal cancer development through activating Wnt/ β -catenin signaling. *Oncotarget* 8: 70214-70225.
- You, S., et al. 2018. An Aza resveratrol-chalcone derivative 6b protects mice against diabetic cardiomyopathy by alleviating inflammation and oxidative stress. *J. Cell. Mol. Med.* 22: 1931-1943.

CONJUGATES

See **Lamin B1 (A-11): sc-377000** for Lamin B1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.