

# Lamin A/C (N-18): sc-6215

## 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, is comprised of ICE, CPP32, ICH-1/Nedd-2, Tx, Mch2, Mch3 (ICE-LAP3 or CMH-1), Mch4 and ICE-LAP6. Ced-3/ICE family members 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. The nuclear Lamin A is cleaved by Mch2, but not CPP32. Nuclear Lamin B is fragmented as a consequence of apoptosis by an unidentified member of the ICE family. Lamin C is a splice variant of Lamin A, differing only at the carboxy-terminus. Lamins A and C are identical for the first 566 amino acids, with Lamin C differing only in 6 unique carboxy-terminal amino acids.

## CHROMOSOMAL LOCATION

Genetic locus: LMNA (human) mapping to 1q22; Lmna (mouse) mapping to 3 F1.

## SOURCE

Lamin A/C (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Lamin A/C of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6215 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Lamin A/C (N-18) is recommended for detection of Lamin A and Lamin C of mouse, rat and human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Lamin A/C (N-18) is also recommended for detection of Lamin A and Lamin C in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Lamin A/C siRNA (h): sc-35776, Lamin A/C siRNA (m): sc-29385, Lamin A/C shRNA Plasmid (h): sc-35776-SH, Lamin A/C shRNA Plasmid (m): sc-29385-SH, Lamin A/C shRNA (h) Lentiviral Particles: sc-35776-V and Lamin A/C shRNA (m) Lentiviral Particles: sc-29385-V.

Molecular Weight of Lamin A/C: 69/62 kDa.

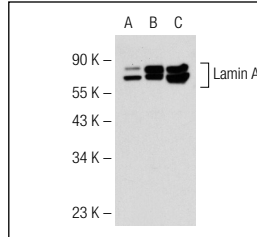
## STORAGE

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

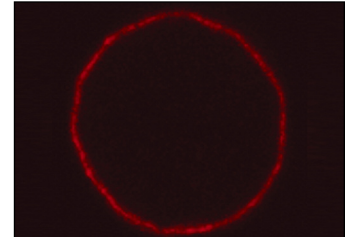
## RESEARCH USE

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

## DATA



Lamin A/C (N-18): sc-6215. Western blot analysis of Lamin A expression in non-transfected 293T: sc-117752 (A), human Lamin A transfected 293T: sc-117752 (B) and Hs68 (C) whole cell lysates.



Lamin A/C (N-18): sc-6215. Immunofluorescence staining of transgenic *Drosophila* salivary gland nucleus expressing human Lamin A. Confocal section shows nuclear rim localization. Courtesy of Schulze, S.R. and Wallrath, L.L.W. unpublished.

## SELECT PRODUCT CITATIONS

- Barboro, P., et al. 2002. Unraveling the organization of the internal nuclear matrix: RNA-dependent anchoring of NuMA to a lamin scaffold. *Exp. Cell Res.* 279: 202-218.
- Magagnotti, C., et al. 2012. Protein profiling reveals energy metabolism and cytoskeletal protein alterations in LMNA mutation carriers. *Biochim. Biophys. Acta* 1822: 970-979.
- Adriana, R., et al. 2012. Melanocortin 5 receptor signaling and internalization: role of MAPK/ERK pathway and  $\beta$ -arrestins 1/2. *Mol. Cell. Endocrinol.* 361: 69-79.
- Capanni, C., et al. 2012. Familial partial lipodystrophy, mandibuloacral dysplasia and restrictive dermopathy feature barrier-to-autointegration factor (BAF) nuclear redistribution. *Cell Cycle* 11: 3568-3577.
- Madureira, P.A., et al. 2012. Genotoxic agents promote the nuclear accumulation of annexin A2: role of annexin A2 in mitigating DNA damage. *PLoS ONE* 7: e50591.
- Perrin, S., et al. 2012. HIV protease inhibitors do not cause the accumulation of prelamin A in PBMCs from patients receiving first line therapy: the ANRS EP45 "aging" study. *PLoS ONE* 7: e53035.
- Kula, A., et al. 2013. HIV-1 pre-mRNA commitment to Rev mediated export through PSF and Matr3. *Virology* 435: 329-340.
- García-Corzo, L., et al. 2013. Dysfunctional Coq9 protein causes predominant encephalomyopathy associated with CoQ deficiency. *Hum. Mol. Genet.* 22: 1233-1248.


 MONOS  
 Satisfation  
 Guaranteed

Try **Lamin A/C (E-1): sc-376248** or **Lamin A/C (636): sc-7292**, our highly recommended monoclonal alternatives to Lamin A/C (N-18). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Lamin A/C (E-1): sc-376248**.