

ARG52326 anti-Lamin A + C antibody [4C4]

Package: 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [4C4] recognizes Lamin A + C
Tested Reactivity	Hu, Ms, Rat, Bov
Tested Application	ICC/IF, WB
Host	Mouse
Clonality	Monoclonal
Clone	4C4
Isotype	IgG1
Target Name	Lamin A + C
Species	Human
Immunogen	Recombinant full length human lamin C expressed in and purified from E. Coli.
Conjugation	Un-conjugated
Alternate Names	HGPS; Renal carcinoma antigen NY-REN-32; LDP1; FPL; LMN1; CDCD1; LMNL1; CDDC; PRO1; EMD2; CMT2B1; 70 kDa lamin; LFP; Prelamin-A/C; LMNC; FPLD2; LGMD1B; IDC; FPLD; CMD1A

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:1000 - 1:2000
	WB	1:1000 - 1:2000
Application Note	Specific for the ~64 and 74k lamin A and C proteins. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

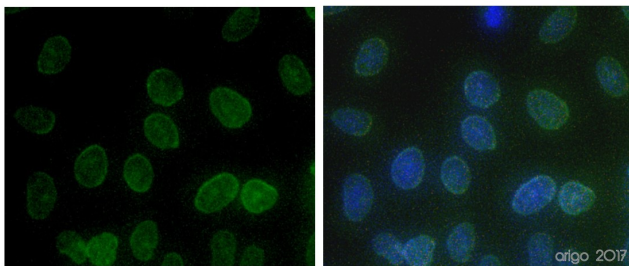
Properties

Form	Liquid
Purification	Affinity Purified
Buffer	PBS and 10 mM Sodium azide
Preservative	10 mM Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 16905 Mouse GeneID: 4000 Human Swiss-port # P02545 Human Swiss-port # P48678 Mouse
Gene Symbol	LMNA
Gene Full Name	lamin A/C
Background	Lamins A and C are nuclear structural proteins that are part of the intermediate filament family and coded for by the same gene (LMNA). Lamins A and C are nearly identical except for their carboxy termini (McKeon et al., 1986). Mutations in the gene encoding lamins A/C have been shown to cause a variety of diseases including autosomal dominant Emery-Dreifuss muscular dystrophy (Bonne et al., 1995), autosomal dominant limb-girdle muscular dystrophy (Muchir et al., 2000) and Charcot-Marie-Tooth disorder type 2 (De Sandre-Giovannoli et al., 2002).
Research Area	Controls and Markers antibody; Signaling Transduction antibody
Calculated Mw	Lamin A: 74 kDa Lamin C: 65 kDa
PTM	Increased phosphorylation of the lamins occurs before envelope disintegration and probably plays a role in regulating lamin associations. Proteolytic cleavage of the C-terminal of 18 residues of prelamin-A/C results in the production of lamin A/C. The prelamin-A/C maturation pathway includes farnesylation of CAAX motif, ZMPSTE24/FACE1 mediated cleavage of the last three amino acids, methylation of the C-terminal cysteine and endoproteolytic removal of the last 15 C-terminal amino acids. Proteolytic cleavage requires prior farnesylation and methylation, and absence of these blocks cleavage. Sumoylation is necessary for the localization to the nuclear envelope. Farnesylation of prelamin-A/C facilitates nuclear envelope targeting.

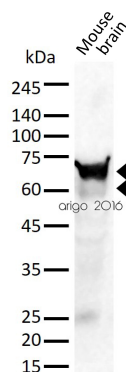
Images



ARG52326 anti-Lamin A + C antibody [4C4] ICC/IF image

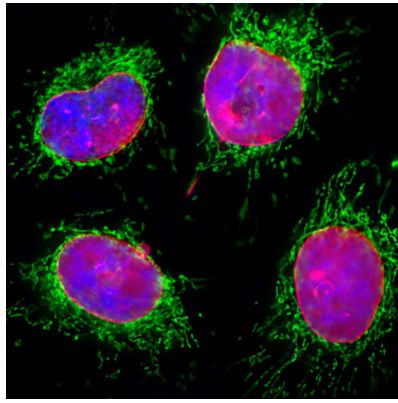
Immunofluorescence: 100% Methanol fixed (RT, 10 min) HeLa cells stained with ARG52326 anti-Lamin A + C antibody [4C4] at 1:100 dilution. Left: primary antibody (green). Right: Merge (primary antibody and DAPI).

Secondary antibody: [ARG55393](#) Goat anti-Mouse IgG (H+L) antibody (FITC)



ARG52326 anti-Lamin A + C antibody [4C4] WB image

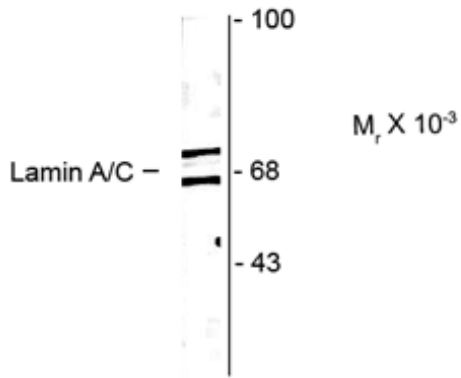
Western blot: 30 µg of Mouse brain lysate stained with ARG52326 anti-Lamin A + C antibody [4C4] at 1:1000 dilution.



ARG52326 anti-Lamin A + C antibody [4C4] ICC/IF image

Immunofluorescence: HeLa cells stained with ARG52326 anti-Lamin A + C antibody [4C4] (red) at 1:2000 dilution, and costained with anti-Hsp 60 antibody (green) at 1:5000 dilution. Hoechst (blue) for nuclear staining.

Clone 4C4 specifically labels the nuclear lamina, while Hsp 60 antibody reveals protein expressed in mitochondria.



ARG52326 anti-Lamin A + C antibody [4C4] WB image

Western blot: HeLa lysate showing specific immunolabeling of the ~64k and 74k lamin A/C proteins stained with ARG52326 anti-Lamin A + C antibody [4C4].



ARG52326 anti-Lamin A + C antibody [4C4] WB image

Western blot: HeLa and HEK293 cell lysates stained with ARG52326 anti-Lamin A + C antibody [4C4] (green) at 1:1000 dilution.

Two strong bands at ~74 and 65 kDa correspond to the lamin A and lamin C proteins respectively.