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Anti-Lamin B1 Antibody

Catalog # AP95928

Product Information

Application	WB, IHC, FC, IF/IC
Primary Accession	P20700
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	66408

Additional Information

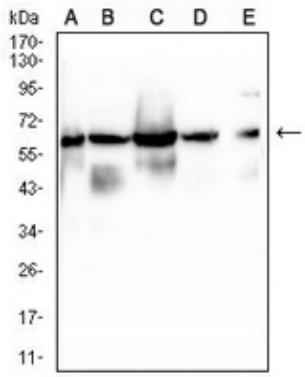
Gene ID	4001
Other Names	LMN2; LMNB; Lamin-B1
Target/Specificity	Recombinant fusion protein of human Lamin B1 expressed in HEK293
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 FC~~FC (1/100 - 1/200) IF/IC~~N/A
Format	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

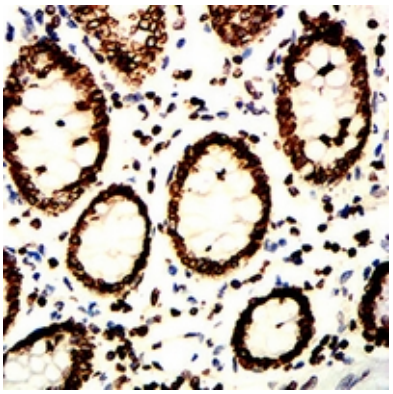
Name	LMNB1
Synonyms	LMN2, LMNB
Function	Lamins are intermediate filament proteins that assemble into a filamentous meshwork, and which constitute the major components of the nuclear lamina, a fibrous layer on the nucleoplasmic side of the inner nuclear membrane (PubMed:28716252, PubMed:32910914). Lamins provide a framework for the nuclear envelope, bridging the nuclear envelope and chromatin, thereby playing an important role in nuclear assembly, chromatin organization, nuclear membrane and telomere dynamics (PubMed:28716252, PubMed:32910914). The structural integrity of the lamina is strictly controlled by the cell cycle, as seen by the disintegration and formation of the nuclear envelope in prophase and telophase, respectively (PubMed:28716252, PubMed:32910914). Plays a role in sperm morphological development during late stages of spermiogenesis, particularly the anchoring of the sperm head to the tail (PubMed:38870534). Component of the LMNB1/SUN5/SEPT12 bridge that connects the sperm proximal centriole to the implantation fossa, the bridge functions to prevent detachment of the proximal centriole from the posterior nucleus during spermiogenesis (PubMed:38870534).

Cellular Location	Nucleus lamina. Note=Expressed in the posterior part of the nucleus during mid-steps of spermiogenesis, expression becomes more localized to the implantation fossa in later stages (By similarity) Expressed at the neck region in mature sperm (By similarity) {ECO:0000250|UniProtKB:P14733}

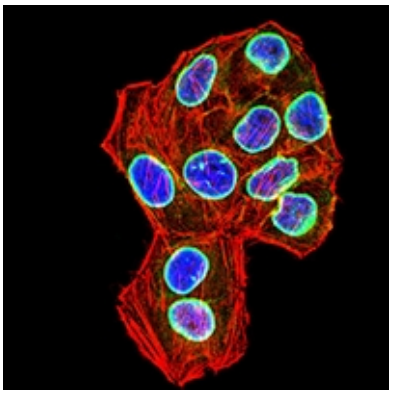
Images



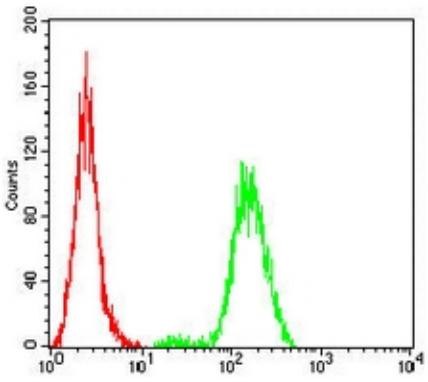
Western blot analysis of Lamin B1 expression in Hela (A), HEK293 (B), K562 (C), SHSY5Y (D), PC3 (E) whole cell lysates. (Predicted band size: 66 kD; Observed band size: 66 kD)



Immunohistochemical analysis of Lamin B1 staining in human colon formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Lamin B1 staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Flow cytometric analysis of HeLa cells using Anti-Lamin B1 Antibody (green) and negative control (red).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.