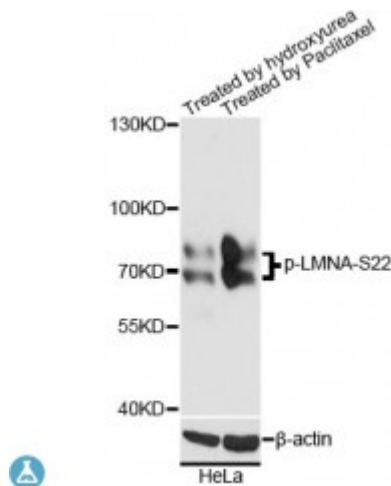


Anti-Phospho-LMNA-(S22) Antibody



Description

The nuclear lamina consists of a two-dimensional matrix of proteins located next to the inner nuclear membrane. The lamin family of proteins make up the matrix and are highly conserved in evolution. During mitosis, the lamina matrix is reversibly disassembled as the lamin proteins are phosphorylated. Lamin proteins are thought to be involved in nuclear stability, chromatin structure and gene expression. Vertebrate lamins consist of two types, A and B. Alternative splicing results in multiple transcript variants. Mutations in this gene lead to several diseases: Emery-Dreifuss muscular dystrophy, familial partial lipodystrophy, limb girdle muscular dystrophy, dilated cardiomyopathy, Charcot-Marie-Tooth disease, and Hutchinson-Gilford progeria syndrome.

Model	STJ116397
Host	Rabbit
Reactivity	Human, Rat
Applications	WB
Immunogen	A synthetic phosphorylated peptide around S22 of human LMNA (NP_005563.1).
Gene ID	4000
Gene Symbol	LMNA
Dilution range	WB 1:500 - 1:2000
Tissue Specificity	In the arteries, prelamin-A/C accumulation is not observed in young healthy vessels but is prevalent in medial vascular smooth muscle cells (VSMCs) from aged individuals and in atherosclerotic lesions, where it often colocalizes with senescent and degenerate VSMCs, Prelamin-A/C expression increases with

age and disease, In normal aging, the accumulation of prelamin-A/C is caused in part by the down-regulation of ZMPSTE24/FACE1 in response to oxidative stress

Purification	Affinity purification
Note	For Research Use Only (RUO).
Protein Name	Prelamin-A/C
Molecular Weight	74.139 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:6636OMIM:115200Reactome:R-HSA-1221632
Alternative Names	Prelamin-A/C
Function	Lamins are 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, Lamin A and C are present in equal amounts in the lamina of mammals, Plays an important role in nuclear assembly, chromatin organization, nuclear membrane and telomere dynamics, Required for normal development of peripheral nervous system and skeletal muscle and for muscle satellite cell proliferation , leading to mitotic failure, genomic instability, and premature senescence
Cellular Localization	Nucleus, Nucleus envelope, Nucleus lamina, Nucleus, nucleoplasm, Nucleus speckle
Post-translational Modifications	Increased phosphorylation of the lamins occurs before envelope disintegration and probably plays a role in regulating lamin associations,