

## Rabbit Anti-Lamin B1 antibody

SL55118R

**Product Name** [KO validated anti] Lamin B1

**Chinese Name** 核纤层蛋白 B 抗体(The nucleus 膜 Maker)

**Alias** lamin B1; LMB1; LMN; LMN2; LMNB 1; LMNB; LMNB1; MGC111419; LMNB1\_HUMAN; Lamin-B1.

**Research Area** Cell biology Chromatin and nuclear signals Signal transduction Apoptosis Cell type markers

**Immunogen Species** Rabbit

**Clonality** Polyclonal

**React Species** Human,Mouse,Rat

**Applications** WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:50-200,IF=1:100-500,IP=0.5µg antibody for 200µg-400µg extracts of whole cells,ChIP=5µg antibody for 10µg-15µg of Chromatin,ELISA=1:5000-10000 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.

**Theoretical molecular weight** 66kDa

**Cellular localization** The nucleus

**Form** Liquid

**Concentration** 1mg/ml

**immunogen** Recombinant human Lamin B1: 397-586/586

**Lsotype** IgG

**Purification** affinity purified by Protein A

**Buffer Solution** 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

**Storage** Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

**Attention**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**PubMed**

[PubMed](#)

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. This gene encodes one of the two B type proteins. Alternative splicing results in transcript variants and a duplication of this gene is associated with autosomal dominant adult-onset leukodystrophy (ADLD). [provided by RefSeq, Oct 2010].

**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.

**Subunit:**

Homodimer. Interacts with lamin-associated polypeptides IA, IB and 2.

**Subcellular Location:**

Nucleus inner membrane; Lipid-anchor; Nucleoplasmic side.

**Product Detail**

**Post-translational modifications:**

B-type lamins undergo a series of modifications, such as farnesylation and phosphorylation. Increased phosphorylation of the lamins occurs before envelope disintegration and probably plays a role in regulating lamin associations.

**DISEASE:**

Defects in LMNB1 are the cause of leukodystrophy demyelinating autosomal dominant adult-onset (ADLD) [MIM:169500]. ADLD is a slowly progressive and fatal demyelinating leukodystrophy presenting in the fourth or fifth decade of life. Clinically characterized by early autonomic abnormalities, pyramidal and cerebellar dysfunction, and symmetric demyelination of the CNS. It differs from multiple sclerosis and other demyelinating disorders in that neuropathology shows preservation of oligodendroglia in the presence of subtotal demyelination and lack of astrogliosis.

**Similarity:**

Belongs to the intermediate filament family.

**SWISS:**

P20700

**Gene ID:**

4001

**Database links:**

[Entrez Gene: 396223](#) Chicken

[Entrez Gene: 4001](#) Human

[Entrez Gene: 16906](#) Mouse

[Entrez Gene: 116685](#) Rat

[Omim: 150340](#) Human

[SwissProt: P14731](#) Chicken

[SwissProt: P20700](#) Human

[SwissProt: P14733](#) Mouse

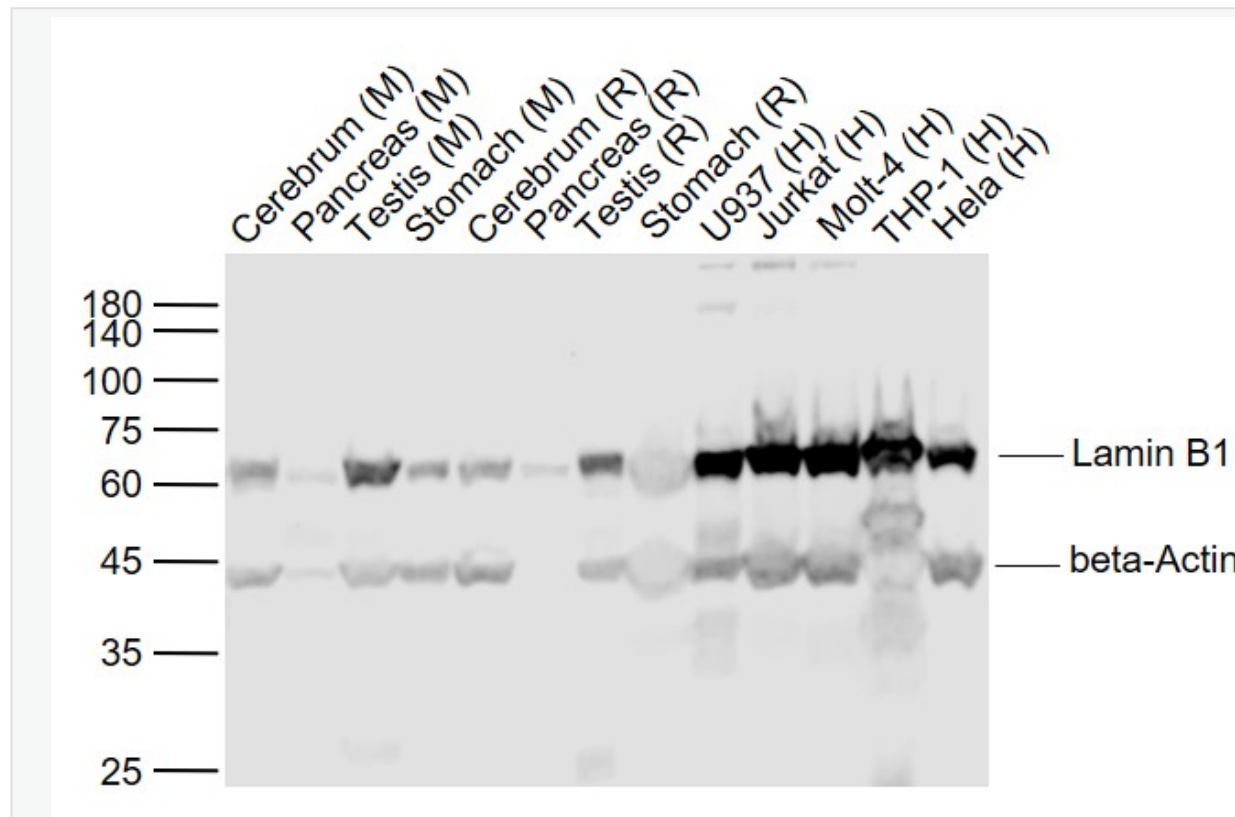
[SwissProt: P70615](#) Rat

[Unigene: 89497](#) Human

[Unigene: 4105](#) Mouse

[Unigene: 11362](#) Rat

核膜 Marker (Nuclear Envelope Marker) 核纤层蛋白(Lamin) 是紧贴核内膜的一层厚度为 50nm 的纤维蛋白层或纤维网络。核纤层与细胞质骨架、核骨架连成一个整体, 一般认为层将核被膜和染色质提供了结构支架。有学者研究认为: lamin 蛋白与 Apoptosis 及衰老有关。它包括: 核纤层蛋白 A、核纤层蛋白 B、核纤层蛋白 C 几个不同亚型的蛋白。



**Product  
Picture**

Sample:

Lane 1: Cerebrum (Mouse) Lysate at 40 ug

Lane 2: Pancreas (Mouse) Lysate at 40 ug

Lane 3: Testis (Mouse) Lysate at 40 ug

Lane 4: Stomach (Mouse) Lysate at 40 ug

Lane 5: Cerebrum (Rat) Lysate at 40 ug

Lane 7: Testis (Rat) Lysate at 40 ug

Lane 8: Stomach (Rat) Lysate at 40 ug

Lane 9: U937 (Human) Cell Lysate at 30 ug

Lane 10: Jurkat (Human) Cell Lysate at 30 ug

Lane 11: Molt-4 (Human) Cell Lysate at 30 ug

Lane 12: THP-1 (Human) Cell Lysate at 30 ug

Lane 13: HeLa (Human) Cell Lysate at 30 ug

Primary:

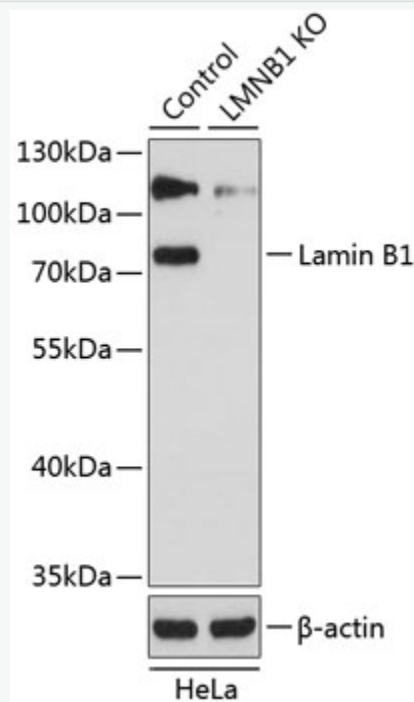
Anti- Lamin B1 (SL55118R) at 1/1000 dilution

Anti-beta-Actin (SL0061R) at 1/2000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 67-70 kD

Observed band size: 65 kD



Sample:

Lane 1: HeLa (Human) Cell Lysate at 25 ug

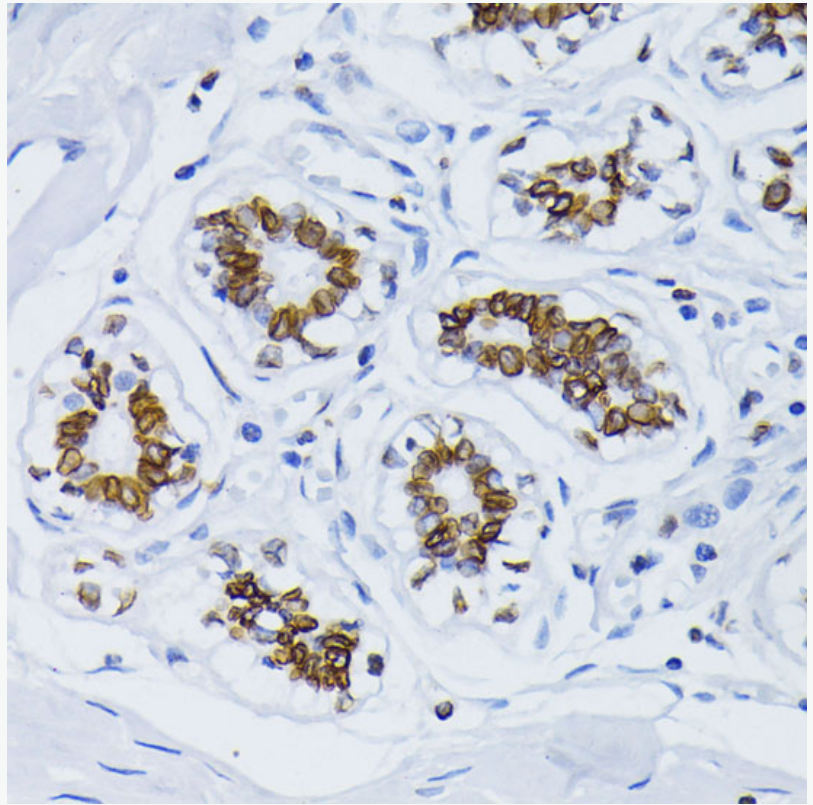
Lane 2: Lamin B1 knockout (KO) Hela (Human) Cell Lysate at 25 ug

Primary: Anti-Lamin B1 (SL55118R) at 1/1000 dilution

Secondary: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution

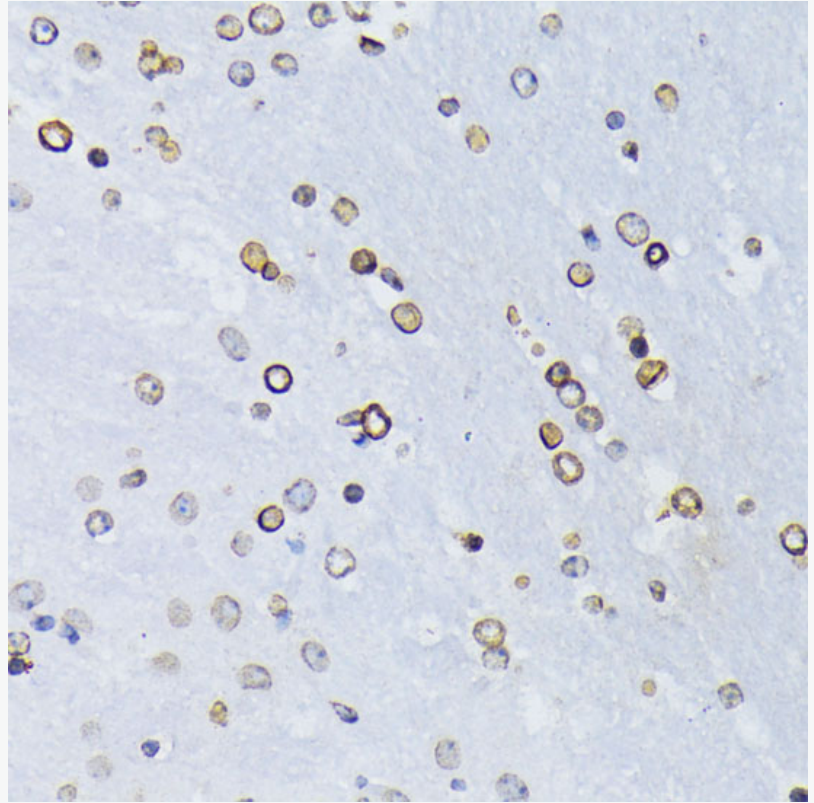
Predicted band size: 67-70 kD

Observed band size: 72 kD

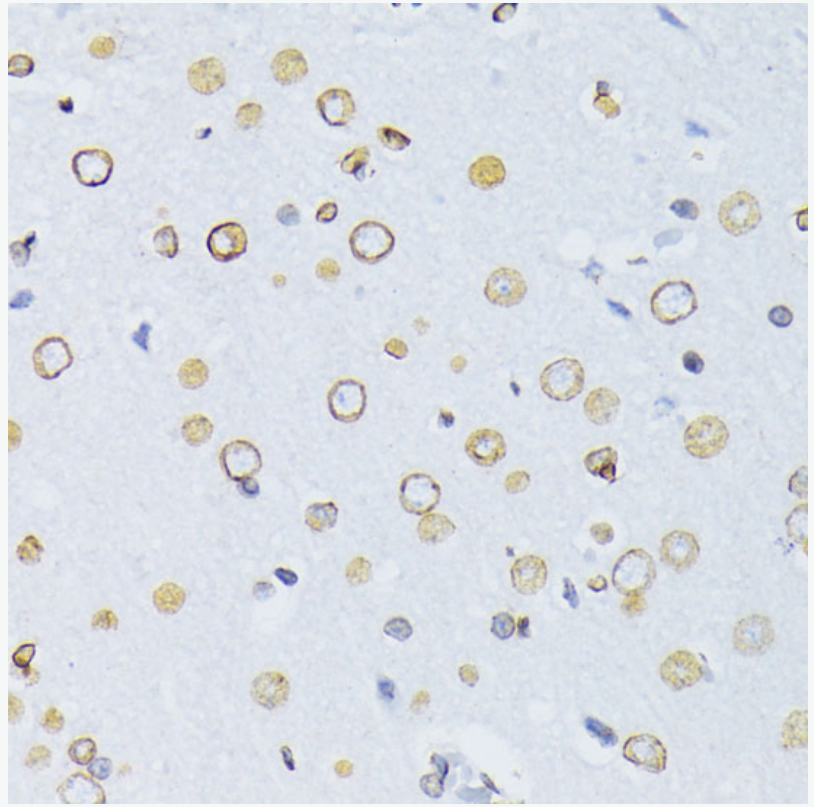


Paraformaldehyde-fixed, paraffin embedded (human breast); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Lamin B1) Polyclonal Antibody, Unconjugated (SL55118R) at 1:100 overnight at 4°C, followed by

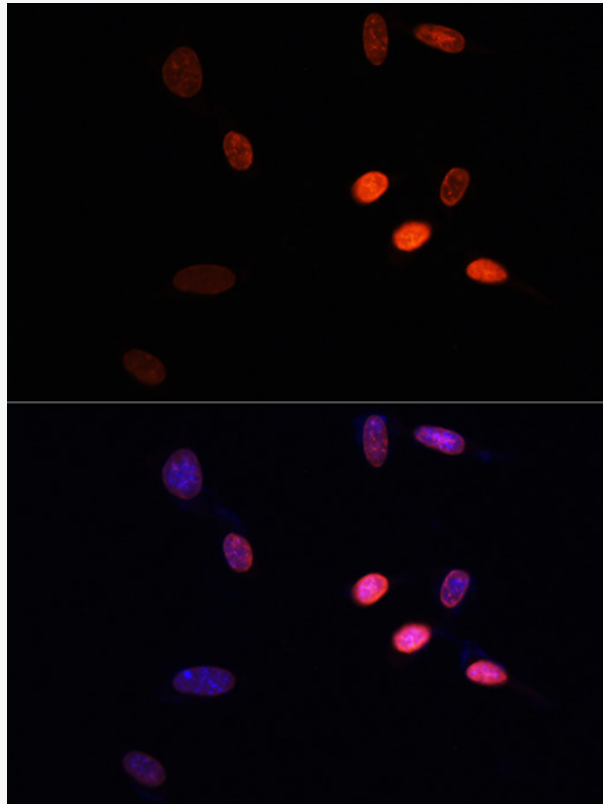
by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 15 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Lamin B1) Polyclonal Antibody, Unconjugated (SL55118R) at 1:100 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 15 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Lamin B1) Polyclonal Antibody, Unconjugated (SL55118R) at 1:100 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



NIH/3T3 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (Validated)Lamin B1 polyclonal Antibody, Unconjugated (SL55118R) 1:100, 90 minutes at 37°C followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.