

Lamin B1

Cat.No. 404 017; Monoclonal rat antibody, 100 µg purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg purified IgG, lyophilized. Azide was added before lyophilization. For reconstitution add 100 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: not tested yet ICC: 1 : 500 IHC: not tested yet IHC-P/FFPE: 1 : 200 up to 1 : 500
Clone	12G6
Subtype	IgG2a (κ light chain)
Immunogen	Synthetic peptide corresponding to AA 8 to 19 from human LaminB1 (UniProt Id: P20700)
Epitop	Epitop: AA 8 to 19 from human LaminB1 (UniProt Id: P20700)
Reactivity	Reacts with: human (P20700), pig. No signal: mouse (P14733), rat (P70615). Other species not tested yet.
Specificity	Specific for Lamin B1

TO BE USED IN VITRO / FOR RESEARCH ONLY

NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Lamin B1 (LMNB1) is an intermediate filament-type protein of the nuclear lamina and is ubiquitously expressed throughout development. It plays important roles in many cellular processes like the distribution of heterochromatin and the regulation of gene expression and splicing. The maintenance of LMNB1 protein levels is required for DNA replication and repair and thus mutations in B-type lamins are usually lethal.

Duplication of the LMNB1 gene causes adult-onset autosomal-dominant leukodystrophy (ADLD), a rare neurological disorder in which overexpression of LMNB1 causes progressive central nervous system demyelination. Improper Lamin B1 expression is often present in tumor cells and decreased levels are observed for example in colon cancer, breast cancer and B-cell malignancies. Lamin B1 loss is also a senescence-associated biomarker and distinguishes senescent from proliferating cells in pre-neoplastic lesions or marks senescent cells in various age-related pathologies.

These antibody are suited to distinguish murine from human cells in humanized mouse models.

Selected General References

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