

## Emerin Antibody

*Emerin: Emery-Dreifuss muscular dystrophy, EDMD, EMD*

**CATALOG No.:4031**

### BACKGROUND:

Emerin is a serine-rich nuclear membrane protein and a member of the nuclear lamina-associated protein family that includes proteins such as LAP2 and MAN1 (1). Each family member, including Emerin, has an ~40 amino acid LEM-domains that binds barrier-to-autointegration (BANF1), a conserved chromatin protein that also serves as a host cell component of retroviral integration complexes, including that of HIV (2,3). Emerin is anchored at the inner membrane of the nuclear envelope where it binds to nuclear intermediate filaments that are formed by lamin proteins (4). Dreifuss-Emery muscular dystrophy is an X-linked inherited degenerative myopathy resulting from mutation in the emerin gene (5).

### SOURCE:

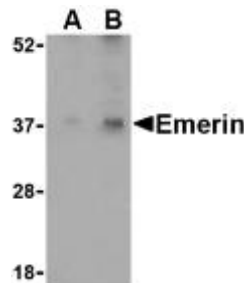
Rabbit polyclonal Emerin antibody was raised against a 19 amino acid peptide from near the amino terminus of human Emerin (GenBank accession no. NP\_000108).

### APPLICATION:

Emerin antibody can be used for detection of Emerin by Western blot at 0.5 – 1 µg/ml. (Optimal dilution should be determined by user.) Human skeletal muscle tissue lysate can be used as positive control. Emerin antibody is human, mouse and rat reactive. **For research use only.**

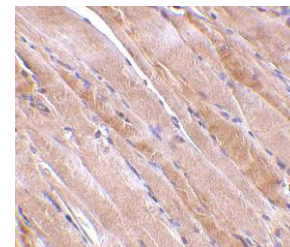
### STORAGE:

Emerin antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of Emerin in human skeletal muscle tissue lysate with Emerin antibody at (A) 0.5 and (B) 1 µg/ml.

Immunohistochemistry of emerin in human muscle tissue with emerin antibody at 2.5 µg/ml.



### RELATED PRODUCTS:

Blocking Peptide, Catalog No. **4031P**.  
Human Skeletal Muscle Tissue Lysate, Catalog No. **1375**.  
BANF1 Antibody (CT), Catalog No. **4017**.

### REFERENCES:

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- Cai M, Huang Y, Ghirlardo R, et al. Solution structure of the constant region of nuclear envelope protein LAP2 reveals two LEM-domain structures: one binds BAF and the other binds DNA. *EMBO J.* 2001; 20:4399-407.
- Chen H and Engelman A. The barrier-to-autointegration protein is a host factor for HIV type 1 integration. *Proc. Natl. Acad. Sci. USA* 1998; 95:15270-4.
- Hutchison CJ. Lamins: building blocks or regulators of gene expression? *Nat. Rev. Mol. Cell Biol.* 2002; 3:848-58.
- Ostlund C and Worman HJ. Nuclear envelope proteins and neuromuscular diseases. *Muscle Nerve* 2003; 27:393-406. (08-01D)