

**Emerin (D3B9G) XP<sup>®</sup> Rabbit mAb**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:
W, IP, IF-IC	H M R Mk	Endogenous	30, 35	Rabbit IgG

**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation  
Immunofluorescence (Immunocytochemistry)

**Dilution**

1:1000  
1:50  
1:400

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

Emerin (D3B9G) XP<sup>®</sup> Rabbit mAb recognizes endogenous levels of total emerin protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the amino terminus of human emerin protein.

**Background**

Emerin is a broadly expressed integral protein of the nuclear inner membrane (1). It contains a LEM domain and binds to several nuclear proteins, such as BAF (barrier-to-autointegration factor) and A- and B-type lamins, which are important in nuclear functions (2-5). Emerin may regulate gene expression through binding to other transcriptional regulators (6,7). Emerin binds to β-catenin and inhibits its nuclear accumulation (8). Recent studies demonstrate that emerin is required for HIV-1 infectivity (9). Mutations in the gene encoding emerin (*EMD*) are a major cause of Emery-Dreifuss muscular dystrophy (EDMD), a disorder characterized by progressive skeletal muscle weakening (10).

**Background References**

1. Nagano, A. et al. (1996) *Nat. Genet.* 12, 254-259.
2. Manilal, S. et al. (1998) *Biochem. Biophys. Res. Commun.* 249, 643-647.
3. Clements, L. et al. (2000) *Biochem. Biophys. Res. Commun.* 267, 709-714.
4. Lee, K.K. et al. (2001) *J. Cell Sci.* 114, 4567-4573.
5. Bengtsson, L. and Wilson, K.L. (2006) *Mol. Biol. Cell* 17, 1154-1163.
6. Holaska, J.M. et al. (2003) *J. Biol. Chem.* 278, 6969-6975.
7. Haraguchi, T. et al. (2004) *Eur. J. Biochem.* 271, 1035-1045.
8. Markiewicz, E. et al. (2006) *EMBO J.* 25, 3275-3285.
9. Jacque, J.M. and Stevenson, M. (2006) *Nature* 441, 641-645.
10. Holaska, J.M. and Wilson, K.L. (2006) *Anat. Rec. A Discov. Mol. Cell. Evol. Biol.* 288, 676-680.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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