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Emerin Antibody

Catalog # ASC10497

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P50402
Other Accession	NP_000108, 4557553
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	28994
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Emerin antibody can be used for detection of Emerin by Western blot at 0.5 - 1 □g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 □g/mL. For immunofluorescence start at 10 □g/mL.

Additional Information

Gene ID	2010
Other Names	Emerin Antibody: STA, EDMD, LEMD5, STA, Emerin, emerin
Target/Specificity	EMD;
Reconstitution & Storage	Emerin antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	Emerin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EMD (HGNC:3331)
Function	Stabilizes and promotes the formation of a nuclear actin cortical network. Stimulates actin polymerization in vitro by binding and stabilizing the pointed end of growing filaments (PubMed:15328537). Inhibits beta-catenin activity by preventing its accumulation in the nucleus. Acts by influencing the nuclear accumulation of beta-catenin through a CRM1-dependent export pathway (PubMed:16858403). Links centrosomes to the nuclear envelope via a microtubule association (PubMed:17785515). Required for proper localization of non-farnesylated prelamin-A/C (PubMed:19323649). Together with NEMP1, contributes to nuclear envelope stiffness in germ cells (PubMed:32923640). EMD and BAF are cooperative cofactors of HIV-1 infection. Association of EMD

	with the viral DNA requires the presence of BAF and viral integrase. The association of viral DNA with chromatin requires the presence of BAF and EMD.
Cellular Location	Nucleus inner membrane; Single-pass membrane protein; Nucleoplasmic side. Nucleus outer membrane. Note=Colocalized with BANF1 at the central region of the assembling nuclear rim, near spindle-attachment sites. The accumulation of different intermediates of prelamin-A/C (non-farnesylated or carboxymethylated farnesylated prelamin-A/C) in fibroblasts modify its localization in the nucleus
Tissue Location	Skeletal muscle, heart, colon, testis, ovary and pancreas

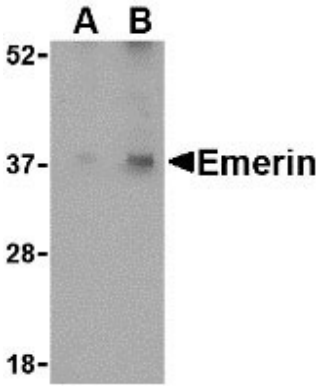
Background

Emerin Antibody: 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. 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. Emerin is anchored at the inner membrane of the nuclear envelope where it binds to nuclear intermediate filaments that are formed by lamin proteins. Dreifuss-Emery muscular dystrophy is an X-linked inherited degenerative myopathy resulting from mutation in the emerin gene.

References

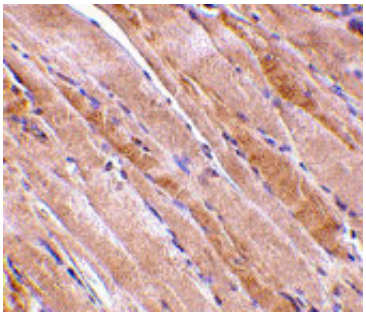
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Cai M, Huang Y, Ghirlando R, et al. Solution structure of the constant region of nuclear envelope protein LAP2 reveals two LEM-domain structures: one binds BAF and the other binds DNA. EMBO J. 2001; 20:4399-407.
Chen H and Engelman A. The barrier-to-autointegration 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.

Images



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 skeletal muscle tissue with emerin antibody at 2.5 µg/mL.





Immunofluorescence of Emerin in Human Skeletal Muscle cells with Emerin antibody at 5 µg/mL.

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