

emerin (H-7): sc-393247



The Power to Question

BACKGROUND

emerin is believed to be a member of the nuclear lamina associated protein family. It is ubiquitously expressed and localized to the nuclear membrane in normal cells. Mutations of the gene that encodes emerin result in the X-linked recessive disease Emery-Dreifuss muscular dystrophy (EDMD), which is characterized by slowly progressing contractures, skeletal muscle wasting and cardiomyopathy. Research has demonstrated that the lack of emerin expression is one cause of EDMD. emerin is involved in the association of the nuclear membrane with the lamina, and is localized specifically to desmosomes and fasciae adherentes in the heart. This may account for conduction defects in patients with EDMD.

REFERENCES

1. Bione, S., et al. 1994. Identification of a novel X-linked gene responsible for Emery-Dreifuss muscular dystrophy. *Nat. Genet.* 8: 323-327.
2. Bione, S., et al. 1995. Identification of new mutations in the Emery-Dreifuss muscular dystrophy gene and evidence for genetic heterogeneity of the disease. *Hum. Mol. Genet.* 4: 1859-1863.
3. Cartegni, L., et al. 1997. Heart-specific localization of emerin: new insights into Emery-Dreifuss muscular dystrophy. *Hum. Mol. Genet.* 6: 2257-2264.
4. Kubo, S., et al. 1997. Emery-Dreifuss muscular dystrophy. *Nippon Rinsho* 55: 3186-3189.
5. Small, K. and Warren, S.T. 1998. Emerin deletions occurring on both Xq28 inversion backgrounds. *Hum. Mol. Genet.* 7: 135-139.

CHROMOSOMAL LOCATION

Genetic locus: EMD (human) mapping to Xq28; Emd (mouse) mapping to X A7.3.

SOURCE

emerin (H-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 195-224 near the C-terminus of emerin of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

emerin (H-7) is available conjugated to agarose (sc-393247 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393247 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393247 PE), fluorescein (sc-393247 FITC), Alexa Fluor® 488 (sc-393247 AF488), Alexa Fluor® 546 (sc-393247 AF546), Alexa Fluor® 594 (sc-393247 AF594) or Alexa Fluor® 647 (sc-393247 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393247 AF680) or Alexa Fluor® 790 (sc-393247 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393247 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

emerin (H-7) is recommended for detection of emerin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for emerin siRNA (h): sc-35296, emerin siRNA (m): sc-35297, emerin siRNA (r): sc-270504, emerin shRNA Plasmid (h): sc-35296-SH, emerin shRNA Plasmid (m): sc-35297-SH, emerin shRNA Plasmid (r): sc-270504-SH, emerin shRNA (h) Lentiviral Particles: sc-35296-V, emerin shRNA (m) Lentiviral Particles: sc-35297-V and emerin shRNA (r) Lentiviral Particles: sc-270504-V.

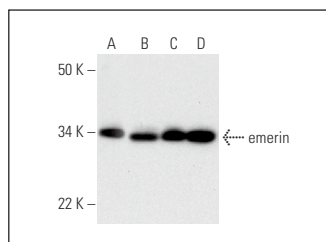
Molecular Weight of emerin: 37 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or HeLa nuclear extract: sc-2120.

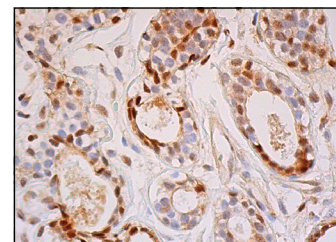
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



emerin (H-7): sc-393247. Western blot analysis of emerin expression in K-562 (A) and Jurkat (B) whole cell lysates and HeLa (C) and Jurkat (D) nuclear extracts.



emerin (H-7): sc-393247. Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tissue showing nuclear staining of glandular cells and myoepithelial cells.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.