

# EMILIN-2 (3D9): sc-517180

## BACKGROUND

EMILINs (elastin microfibril interface located proteins) are extracellular matrix glycoproteins that localize to sites with proximity to elastin and microfibrils. They consist of an N-terminal cysteine-rich EMI domain and a conserved C-terminal gC1q-like domain. EMILIN-1 is abundant in elastin-rich tissues such as blood vessels, skin, heart and lung. It influences placenta formation and initial organogenesis with a later role in interstitial connective tissue. EMILIN-2 is larger than EMILIN-1 and contains a unique proline-rich domain. It is likely involved in the process of elastogenesis. Multimerin-2 (also known as EMILIN-3 or EndoGlyx-1) is expressed during embryonic development. Multimerin-1 (also known as EMILIN-4) is expressed in platelets and the endothelium of blood vessels and may act as a carrier protein for platelet factor V. EMILIN-5 is encoded by the EMILIN3 gene and is sometimes referred to as EMILIN-3. It contains the N-terminal cysteine-rich EMI domain but lacks the C-terminal gC1q-like domain. EMILIN-5 is expressed in human mesenchymal stem cells and plays an important role in skeletal development.

## REFERENCES

1. Doliana, R., et al. 1999. EMILIN, a component of the elastic fiber and a new member of the C1q/tumor necrosis factor superfamily of proteins. *J. Biol. Chem.* 274: 16773-16781.
2. Mongiat, M., et al. 2000. Self-assembly and supramolecular organization of EMILIN. *J. Biol. Chem.* 275: 25471-25480.
3. Doliana, R., et al. 2001. Isolation and characterization of EMILIN-2, a new component of the growing EMILINs family and a member of the EMI domain-containing superfamily. *J. Biol. Chem.* 276: 12003-12011.
4. Braghetta, P., et al. 2002. Expression of the EMILIN1 gene during mouse development. *Matrix Biol.* 21: 603-609.
5. Spessotto, P., et al. 2003.  $\beta$ 1 Integrin-dependent cell adhesion to EMILIN-1 is mediated by the gC1q domain. *J. Biol. Chem.* 278: 6160-6167.
6. Doi, M., et al. 2004. Molecular cloning and characterization of a novel gene, EMILIN5, and its possible involvement in skeletal development. *Biochem. Biophys. Res. Commun.* 313: 888-893.
7. Kishore, U., et al. 2004. C1q and tumor necrosis factor superfamily: modularity and versatility. *Trends Immunol.* 25: 551-561.
8. Verdone, G., et al. 2004. Sequence-specific backbone NMR assignments for the C-terminal globular domain of EMILIN-1. *J. Biomol. NMR* 29: 91-92.
9. Zanetti, M., et al. 2004. EMILIN-1 deficiency induces elastogenesis and vascular cell defects. *Mol. Cell. Biol.* 24: 638-650.

## CHROMOSOMAL LOCATION

Genetic locus: EMILIN2 (human) mapping to 18p11.32.

## SOURCE

EMILIN-2 (3D9) is a mouse monoclonal antibody raised against amino acids 121-230 representing partial length EMILIN-2 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>3</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

EMILIN-2 (3D9) is recommended for detection of EMILIN-2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for EMILIN-2 siRNA (h): sc-72374, EMILIN-2 shRNA Plasmid (h): sc-72374-SH and EMILIN-2 shRNA (h) Lentiviral Particles: sc-72374-V.

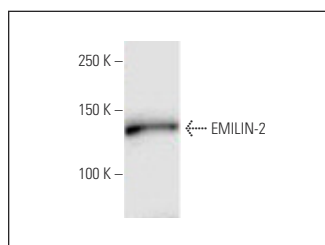
Molecular Weight of EMILIN-2: 112 kDa.

Positive Controls: human colon extract: sc-363757.

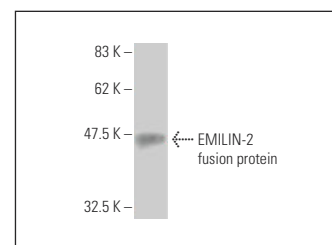
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



EMILIN-2 (3D9): sc-517180. Western blot analysis of EMILIN-2 expression in human colon tissue extract.



EMILIN-2 (3D9): sc-517180. Western blot analysis of human recombinant EMILIN-2 fusion protein.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.