

# EMID2 (E-14): sc-160317

## BACKGROUND

EMID2 (EMI domain-containing protein 2), also known as COL26A1 (collagen  $\alpha$ -1(XXVI) chain) or EMU2, is a 441 amino acid secreted protein that is hydroxylated on proline residues. EMID2 contains an N-terminal signal peptide, followed by an emilin (EMI) domain, two collagen stretches and a novel C-terminal domain. The EMI domain contains seven conserved cysteines that may mediate dimerization. Existing as two alternatively spliced isoforms, the EMID2 gene is conserved in chimpanzee, canine, bovine, mouse and chicken, and maps to human chromosome 7q22.1. The EMID2 gene contains 13 exons and spans 196 kb. Chromosome 7 is approximately 158 million bases long, encodes over 1,000 genes and makes up about 5% of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfourt and friendliness with strangers, and an elfin appearance.

## REFERENCES

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- Leimeister, C., et al. 2002. Developmental expression and biochemical characterization of Emu family members. *Dev. Biol.* 249: 204-218.
- Sato, K., et al. 2002. Type XXVI collagen, a new member of the collagen family, is specifically expressed in the testis and ovary. *J. Biol. Chem.* 277: 37678-37684.
- Hillier, L.W., et al. 2003. The DNA sequence of human chromosome 7. *Nature* 424: 157-164.
- Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608927. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Brezinová, J., et al. 2007. Structural aberrations of chromosome 7 revealed by a combination of molecular cytogenetic techniques in myeloid malignancies. *Cancer Genet. Cytogenet.* 173: 10-16.

## CHROMOSOMAL LOCATION

Genetic locus: EMID2 (human) mapping to 7q22.1; Emid2 (mouse) mapping to 5 G2.

## SOURCE

EMID2 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of EMID2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160317 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

EMID2 (E-14) is recommended for detection of EMID2 of mouse, rat and 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with EMID1.

Suitable for use as control antibody for EMID2 siRNA (h): sc-89406, EMID2 siRNA (m): sc-144641, EMID2 shRNA Plasmid (h): sc-89406-SH, EMID2 shRNA Plasmid (m): sc-144641-SH, EMID2 shRNA (h) Lentiviral Particles: sc-89406-V and EMID2 shRNA (m) Lentiviral Particles: sc-144641-V.

Molecular Weight (predicted) of EMID2: 45 kDa.

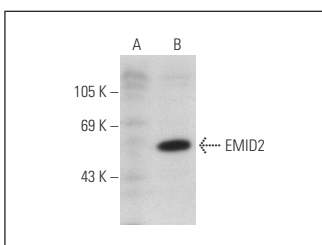
Molecular Weight (observed) of EMID2: 55 kDa.

Positive Controls: EMID2 (h): 293T Lysate: sc-112481.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ 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). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



EMID2 (E-14): sc-160317. Western blot analysis of EMID2 expression in non-transfected: sc-117752 (A) and human EMID2 transfected: sc-112481 (B) 293T whole cell lysates.

## 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.