



## SCUBE3 (P-17): sc-103878

### BACKGROUND

SCUBE3 (signal peptide, CUB domain, EGF-like 3), also known as CEGF3, is a novel secreted 993 amino acid cell-surface osteoblast protein that plays an important role in bone cell biology. While highly expressed in osteoblasts, SCUBE3 expression is unobservable or very low in non-bone tissues. SCUBE3 forms homo-oligomers and hetero-oligomers with SCUBE1, and may undergo C-terminal proteolytic cleavage or become N-glycosylated following translation. Two SCUBE3 isoforms exist as a result of alternative splicing events. SCUBE3 contains one CUB domain and nine EGF-like domains, and is encoded by a gene which maps to human chromosome 6p21.31, a region associated with a rare form of metabolic bone disease known as Paget's disease. Chromosome 6 contains 170 million base pairs and comprises nearly 6% of the human genome.

### REFERENCES

- Jacobs, J.W., et al. 1999. Paget's disease of the bones: diagnosis and treatment. *Ned Tijdschr Geneesk* 143: 719-725.
- Yang, R.B., et al. 2002. Identification of a novel family of cell-surface proteins expressed in human vascular endothelium. *J. Biol. Chem.* 277: 46364-46373.
- Wu, B.T., et al. 2004. A novel secreted, cell-surface glycoprotein containing multiple epidermal growth factor-like repeats and one CUB domain is highly expressed in primary osteoblasts and bones. *J. Biol. Chem.* 279: 37485-37490.
- Yang, H.Y., et al. 2007. Transgenic overexpression of the secreted, extracellular EGF-CUB domain-containing protein SCUBE3 induces cardiac hypertrophy in mice. *Cardiovasc. Res.* 75: 139-147.
- Haworth, K., et al. 2007. Expression of the Scube3 epidermal growth factor-related gene during early embryonic development in the mouse. *Gene Expr. Patterns* 7: 630-634.

### CHROMOSOMAL LOCATION

Genetic locus: SCUBE3 (human) mapping to 6p21.31; Scube3 (mouse) mapping to 17 A3.3.

### SOURCE

SCUBE3 (P-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SCUBE3 of human origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103878 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

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

### APPLICATIONS

SCUBE3 (P-17) is recommended for detection of SCUBE3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 SCUBE1 or SCUBE2.

Suitable for use as control antibody for SCUBE3 siRNA (h): sc-95189, SCUBE3 siRNA (m): sc-106536, SCUBE3 shRNA Plasmid (h): sc-95189-SH, SCUBE3 shRNA Plasmid (m): sc-106536-SH, SCUBE3 shRNA (h) Lentiviral Particles: sc-95189-V and SCUBE3 shRNA (m) Lentiviral Particles: sc-106536-V.

Molecular Weight of SCUBE3: 109 kDa.

Positive Controls: HUV-EC-C whole cell lysate.

### 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) 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.

### 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) or our catalog for detailed protocols and support products.