

Cyr61 (N-16): sc-8560

BACKGROUND

Cyr61 is a secreted heparin binding protein, encoded by a growth factor-inducible immediate-early gene, that associates with the extracellular matrix and connective tissue. Cyr61 is a member of a distinct family of angiogenic and vasculogenic regulators designated CCN proteins, which includes connective tissue growth factor (CTGF) and the mouse Cyr61 homolog, Fisp12. As an angiogenic inducer, Cyr61 binds to the cell surface receptor Integrin $\alpha V/\beta 3$, where it then stimulates cell adhesion and migration and promotes DNA synthesis of human vascular endothelial cells. Expression of Cyr61 is elevated during vessel growth, wound healing and chondrocyte differentiation. Cyr61 is also detected in a wide variety of tumors as it induces tumor growth and functions as a marker of tumor progression.

REFERENCES

- O'Brien, T.P., et al. 1990. Expression of Cyr61, a growth factor-inducible immediate-early gene. *Mol. Cell. Biol.* 10: 3569-3577.
- O'Brien, T.P., et al. 1992. Expression of the growth factor-inducible immediate early gene Cyr61 correlates with chondrogenesis during mouse embryonic development. *Cell Growth Differ.* 3: 645-654.

CHROMOSOMAL LOCATION

Genetic locus: CYR61 (human) mapping to 1p22.3, WISP3 (human) mapping to 6q21; Cyr61 (mouse) mapping to 3 H2, Wisp3 (mouse) mapping to 10 B1.

SOURCE

Cyr61 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Cyr61 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-8560 P, (100 μ g 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

Cyr61 (N-16) is recommended for detection of Cyr61 and, to a lesser extent, WISP-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

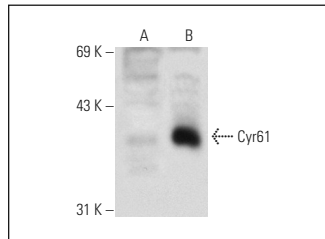
Molecular Weight of Cyr61: 40 kDa.

Positive Controls: Cyr61 (h): 293T Lysate: sc-175194, MDA-MB-231 cell lysate: sc-2232 or HUV-EC-C whole cell lysate: sc-364180.

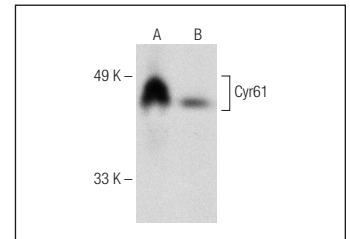
RECOMMENDED SECONDARY REAGENTS

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



Cyr61 (N-16): sc-8560. Western blot analysis of Cyr61 expression in non-transfected: sc-117752 (A) and human Cyr61 transfected: sc-175194 (B) 293T whole cell lysates.



Cyr61 (N-16): sc-8560. Western blot analysis of Cyr61 expression in MDA-MB-231 (A) and HUV-EC-C (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Sakamoto, S., et al. 2004. Increased expression of Cyr61, an extracellular matrix signaling protein, in human benign prostatic hyperplasia and its regulation by lysophosphatidic acid. *Endocrinology* 145: 2929-2940.
- Quan, T., et al. 2006. Elevated cysteine-rich 61 mediates aberrant collagen homeostasis in chronologically aged and photoaged human skin. *Am. J. Pathol.* 169: 482-490.
- Cui, T.X., et al. 2011. C/EBP β mediates growth hormone-regulated expression of multiple target genes. *Mol. Endocrinol.* 25: 681-693.
- Quan, T., et al. 2011. Retinoids suppress cysteine-rich protein 61 (CCN1), a negative regulator of collagen homeostasis, in skin equivalent cultures and aged human skin *in vivo*. *Exp. Dermatol.* 20: 572-576.
- Terada, N., et al. 2012. Cyr61 is regulated by cAMP-dependent protein kinase with serum levels correlating with prostate cancer aggressiveness. *Prostate* 72: 966-976.

RESEARCH USE

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



Try **Cyr61 (A-10): sc-374129** or **Cyr61 (H-2): sc-271217**, our highly recommended monoclonal alternatives to Cyr61 (N-16).