

Cyr61 (K-13): sc-34775

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

1. O'Brien, T.P., et al. 1990. Expression of Cyr61, a growth factor-inducible immediate-early gene. *Mol. Cell. Biol.* 10: 3569-3577.
2. 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.
3. Martinerie, C., et al. 1997. Chromosomal mapping and expression of the human Cyr61 gene in tumour cells from the nervous system. *Mol. Pathol.* 50: 310-316.
4. Babic, A.M., et al. 1998. Cyr61, a product of a growth factor-inducible immediate early gene, promotes angiogenesis and tumor growth. *Proc. Natl. Acad. Sci. USA* 95: 6355-6360.
5. Jedsadayanmata, A., et al. 1999. Activation-dependent adhesion of human platelets to Cyr61 and Fisp12/mouse connective tissue growth factor is mediated through Integrin $\alpha IIb/\beta 3$. *J. Biol. Chem.* 274: 24321-24327.
6. Babic, A.M., et al. 1999. Fisp12/mouse connective tissue growth factor mediates endothelial cell adhesion and migration through Integrin $\alpha V/\beta 3$, promotes endothelial cell survival and induces angiogenesis *in vivo*. *Mol. Cell. Biol.* 19: 2958-2966.

CHROMOSOMAL LOCATION

Genetic locus: CYR61 (human) mapping to 1p22.3; Cyr61 (mouse) mapping to 3 H2.

SOURCE

Cyr61 (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Cyr61 of mouse 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-34775 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cyr61 (K-13) is recommended for detection of Cyr61 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).

Cyr61 (K-13) is also recommended for detection of Cyr61 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Cyr61 siRNA (h): sc-39331, Cyr61 siRNA (m): sc-39332, Cyr61 shRNA Plasmid (h): sc-39331-SH, Cyr61 shRNA Plasmid (m): sc-39332-SH, Cyr61 shRNA (h) Lentiviral Particles: sc-39331-V and Cyr61 shRNA (m) Lentiviral Particles: sc-39332-V.

Molecular Weight of Cyr61: 40 kDa.

Positive Controls: FHs 173We cell lysate: sc-2417.

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.

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 or our catalog for detailed protocols and support products.



Try **Cyr61 (A-10): sc-374129** or **Cyr61 (H-2): sc-271217**, our highly recommended monoclonal alternatives to Cyr61 (K-13). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Cyr61 (A-10): sc-374129**.