

Cyr61 (h): 293 Lysate: sc-113135

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., Yang, G.P., Sanders, L. and Lau, L.F. 1990. Expression of Cyr61, a growth factor-inducible immediate-early gene. *Mol. Cell. Biol.* 10: 3569-3577.
2. O'Brien, T.P. and Lau, L.F. 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., Viegas-Pequignot, E., Nguyen, V.C. and Perbal, B. 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., Kireeva, M.L., Kolesnikova, T.V. and Lau, L.F. 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., Chen, C.C., Kireeva, M.L., Lau, L.F. and Lam, S.C. 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., Chen, C.C. and Lau, L.F. 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.

PRODUCT

Cyr61 (h): 293 Lysate represents a lysate of human Cyr61 transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

Cyr61 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive Cyr61 antibodies. Recommended use: 10-20 μ l per lane.

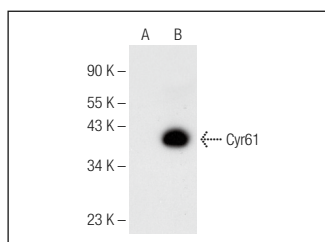
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

Cyr61 (A-10): sc-374129 is recommended as a positive control antibody for Western Blot analysis of enhanced human Cyr61 expression in Cyr61 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Cyr61 (A-10): sc-374129. Western blot analysis of Cyr61 expression in non-transfected: sc-110760 (A) and human Cyr61 transfected: sc-113135 (B) 293 whole cell lysates.

RESEARCH USE

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