

Cyr61 (H-2): sc-271217

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 α V/ β 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.

CHROMOSOMAL LOCATION

Genetic locus: CYR61 (human) mapping to 1p22.3.

SOURCE

Cyr61 (H-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 345-381 at the C-terminus of Cyr61 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-271217 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

PROTOCOLS

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

APPLICATIONS

Cyr61 (H-2) is recommended for detection of Cyr61 of human origin by Western Blotting (starting dilution 1:100, 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).

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

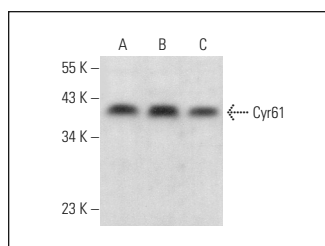
Molecular Weight of Cyr61: 40 kDa.

Positive Controls: HUV-EC-C whole cell lysate: sc-364180, MDA-MB-231 cell lysate: sc-2232 or HeLa whole cell lysate: sc-2200.

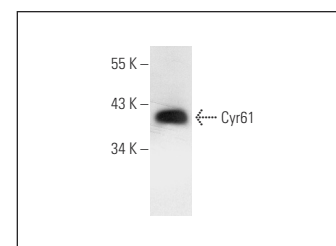
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Cyr61 (H-2): sc-271217. Western blot analysis of Cyr61 expression in HUV-EC-C (A), NTERA-2 cl.D1 (B) and HeLa (C) whole cell lysates.



Cyr61 (H-2): sc-271217. Western blot analysis of Cyr61 expression in MDA-MB-231 whole cell lysate.

SELECT PRODUCT CITATIONS

- Gvozdenovic, A., et al. 2016. Targeting α v β 3 and α v β 5 integrins inhibits pulmonary metastasis in an intratibial xenograft osteosarcoma mouse model. *Oncotarget* 7: 55141-55154.
- Seo, G.Y., et al. 2018. A novel synthetic material, BMM, accelerates wound repair by stimulating re-epithelialization and fibroblast activation. *Int. J. Mol. Sci.* 19: 1164.
- Liu, S., et al. 2019. SMAD-dependent signaling mediates morphogenetic protein 6-induced stimulation of connective tissue growth factor in luteinized human granulosa cells†. *Biol. Reprod.* 101: 445-456.
- Bartkowiak, K., et al. 2021. Cysteine-rich angiogenic inducer 61: pro-survival function and role as a biomarker for disseminating breast cancer cells. *Cancers* 13: 563.
- Ackar, L., et al. 2021. Blood-based detection of lung cancer using cysteine-rich angiogenic inducer 61 (CYR61) as a circulating protein biomarker: a pilot study. *Mol. Oncol.* E-published.

RESEARCH USE

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



See **Cyr61 (A-10): sc-374129** for Cyr61 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.