

# Cyr61 (A-10): sc-374129

## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Cyr61 (A-10) is a mouse monoclonal antibody raised against amino acids 163-240 of Cyr61 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Cyr61 (A-10) is available conjugated to agarose (sc-374129 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374129 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374129 PE), fluorescein (sc-374129 FITC), Alexa Fluor® 488 (sc-374129 AF488), Alexa Fluor® 546 (sc-374129 AF546), Alexa Fluor® 594 (sc-374129 AF594) or Alexa Fluor® 647 (sc-374129 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374129 AF680) or Alexa Fluor® 790 (sc-374129 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

Cyr61 (A-10) 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  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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.

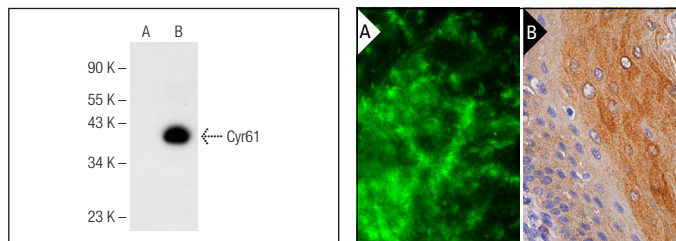
Molecular Weight of Cyr61: 40 kDa.

Positive Controls: FHs 173We cell lysate: sc-2417 or Cyr61 (h): 293 Lysate: sc-113135.

## STORAGE

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

## 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.

Cyr61 (A-10): sc-374129. Immunofluorescence staining of methanol-fixed HeLa cells showing extracellular localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells (B).

## SELECT PRODUCT CITATIONS

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- Kurundkar, A.R., et al. 2016. The matricellular protein CCN1 enhances TGF- $\beta$ 1/Smad3-dependent profibrotic signaling in fibroblasts and contributes to fibrogenic responses to lung injury. *FASEB J.* 30: 2135-2150.
- Zhou, Y., et al. 2017. TEAD1/4 exerts oncogenic role and is negatively regulated by miR-4269 in gastric tumorigenesis. *Oncogene* 36: 6518-6530.
- Jin, D., et al. 2018. Norcantharidin reverses Cisplatin resistance and inhibits the epithelial mesenchymal transition of human non-small lung cancer cells by regulating the YAP pathway. *Oncol. Rep.* 40: 609-620.
- Choe, M.H., et al. 2018. MiR-550a-3-5p acts as a tumor suppressor and reverses BRAF inhibitor resistance through the direct targeting of YAP. *Cell Death Dis.* 9: 640.
- He, H., et al. 2018. The Wnt- $\beta$ -catenin signaling regulated MRTF-A transcription to activate migration-related genes in human breast cancer cells. *Oncotarget* 9: 15239-15251.
- Wang, Y., et al. 2019. MicroRNA-608 sensitizes non-small cell lung cancer cells to cisplatin by targeting TEAD2. *Mol. Med. Rep.* 20: 3519-3526.
- Kase, Y. and Okano, H. 2020. Expression of ACE2 and a viral virulence-regulating factor CCN family member 1 in human iPSC-derived neural cells: implications for COVID-19-related CNS disorders. *Inflamm. Regen.* 40: 32.
- Khan, A.Z., et al. 2020. Sericin-induced melanogenesis in cultured retinal pigment epithelial cells is associated with elevated levels of hydrogen peroxide and inflammatory proteins. *Molecules* 25: 4395.

## RESEARCH USE

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