

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human Cyr61/CCN1 in direct ELISAs.                                                                                                                                                                                                                                  |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2A</sub> Clone # 434311                                                                                                                                                                                                                             |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human Cyr61/CCN1<br>Ala22-Asp381<br>Accession # O00622                                                                                                                                                                      |
| <b>Conjugate</b>          | Alexa Fluor 488<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 515-545 nm                                                                                                                                                                                         |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**ELISA** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

Cyr61, also known as CCN1, is a 40 - 45 kDa matricellular glycoprotein that plays an important role in cellular adhesion and migration (1). Cyr61 consists of an IGF1R domain, a VWF type C domain, a TSP type I domain, and a cysteine knot domain (2). Mature human Cyr61 shares 93% amino acid sequence identity with mouse and rat Cyr61. It is widely expressed during development and in adult tissues (2, 3). Cyr61 associates with the extracellular matrix (ECM) and with many cell surface molecules including Integrins αVβ3, αVβ5, αMβ2, and α6β1, Syndecan-4, and heparan sulfate proteoglycans (1, 3). Cyr61 mediates the adhesion and migration of multiple cell types and also promotes vascular endothelial cell tubule formation (4 - 6). Plasmin cleavage of ECM-bound Cyr61 releases a 28 kDa N-terminal fragment which retains the ability to promote endothelial cell migration (7). Cyr61 exhibits both tumorigenic and tumor suppressor properties. It is upregulated and promotes tumorigenesis, angiogenesis, and metastasis in breast, renal, gastric, squamous cell, and colorectal carcinomas as well as in glioma (8 - 12). In contrast, when downregulated, it suppresses tumor growth in endometrial, hepatic, and non-small cell lung cancers (8, 13, 14). Cyr61 is also upregulated in injured skin and bone where it induces the expression of growth factors, cytokines, proteases, and integrins involved in wound repair (15, 16).

## PRODUCT SPECIFIC NOTICES

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