Human Cyr61/CCN1 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6009

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Cyr61/CCN1 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Cyr61/CCN1 Ala22-Asp381 Accession # O00622
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

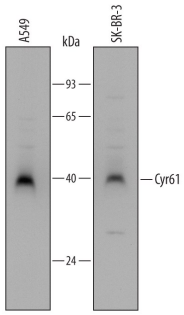
APPLICATIONS

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.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Simple Western	10 µg/mL	See Below
ELISA	This antibody functions as an ELISA detection antibody when paired with Rat Anti-Human Cyr61/CCN1 Monoclonal Antibody (Catalog # MAB40551). *This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Human Cyr61/CCN1 DuoSet ELISA Kit (Catalog # DY4055) for convenient development of a sandwich ELISA or the Human Cyr61/CCN1 Quantikine ELISA Kit (Catalog # DCYR10) for a complete optimized ELISA.*	

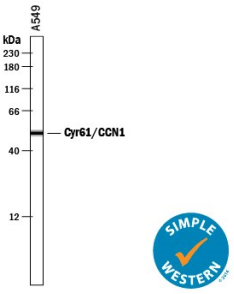
DATA

Western Blot



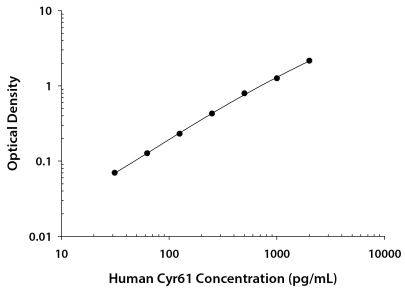
Detection of Human Cyr61/CCN1 by Western Blot. Western blot shows lysates of A549 human lung carcinoma cell line and SK-BR-3 human breast cancer cell line. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Human Cyr61/CCN1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6009) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Cyr61/CCN1 at approximately 40 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

Simple Western



Detection of Human Cyr61/CCN1 by Simple Western™. Simple Western lane view shows lysates of A549 human lung carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for Cyr61/CCN1 at approximately 52 kDa (as indicated) using 10 µg/mL of Sheep Anti-Human Cyr61/CCN1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6009) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

ELISA



Human Cyr61/CCN1 ELISA Standard Curve. Recombinant Human Cyr61/CCN1 protein was serially diluted 2-fold and captured by Rat Anti-Human Cyr61/CCN1 Monoclonal Antibody (Catalog # MAB40551) coated on a Clear Polystyrene Microplate (Catalog # DY990). Sheep Anti-Human Cyr61/CCN1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6009) was biotinylated and incubated with the protein captured on the plate. Detection of the standard curve was achieved by incubating Streptavidin-HRP (Catalog # DY998) followed by Substrate Solution (Catalog # DY999) and stopping the enzymatic reaction with Stop Solution (Catalog # DY994).

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Human Cyr61/CCN1 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG

Catalog Number: AF6009

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Cysteine-rich angiogenic inducer 61 (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 IGFBP 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).

References:

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