abcam

Product datasheet

Anti-CYR61/CCN1 antibody [EPR20681] ab230947

KO VALIDATED Recombinant RabMAb

★★★★★ 1 Abreviews 3 References 7 Images

Overview

Product name	Anti-CYR61/CCN1 antibody [EPR20681]
Description	Rabbit monoclonal [EPR20681] to CYR61/CCN1
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, ICC/IF, IP
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, PC-3, MDA-MB-231 and Saos-2 whole cell lysate. ICC/IF: MDA-MB-231 cells. Flow Cyt (intra): MDA-MB-231 cells. IP: Saos-2 whole cell lysate.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20681
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab230947 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/60.
WB	★★★★★ (1)	1/1000. Predicted molecular weight: 42 kDa.
ICC/IF		1/500.
IP		1/30.

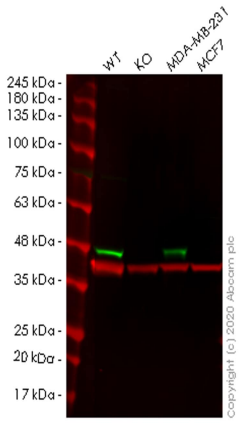
Target

Function Promotes cell proliferation, chemotaxis, angiogenesis and cell adhesion. Appears to play a role in wound healing by up-regulating, in skin fibroblasts, the expression of a number of genes involved in angiogenesis, inflammation and matrix remodeling including VEGA-A, VEGA-C, MMP1, MMP3, TIMP1, uPA, PAI-1 and integrins alpha-3 and alpha-5. CYR61-mediated gene regulation is dependent on heparin-binding. Down-regulates the expression of alpha-1 and alpha-2 subunits of collagen type-1. Promotes cell adhesion and adhesive signaling through integrin alpha-6/beta-1, cell migration through integrin alpha-v/beta-5 and cell proliferation through integrin alpha-v/beta-3.

Sequence similarities Belongs to the CCN family.
Contains 1 CTCK (C-terminal cystine knot-like) domain.
Contains 1 IGFBP N-terminal domain.
Contains 1 TSP type-1 domain.
Contains 1 VWFC domain.

Cellular localization Secreted.

Images



Western blot - Anti-CYR61/CCN1 antibody [EPR20681] (ab230947)

All lanes : Anti-CYR61/CCN1 antibody [EPR20681] (ab230947) at 1/500 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : CYR61 knockout HeLa cell lysate
Lane 3 : MDA-MB-231 cell lysate
Lane 4 : MCF7 cell lysate

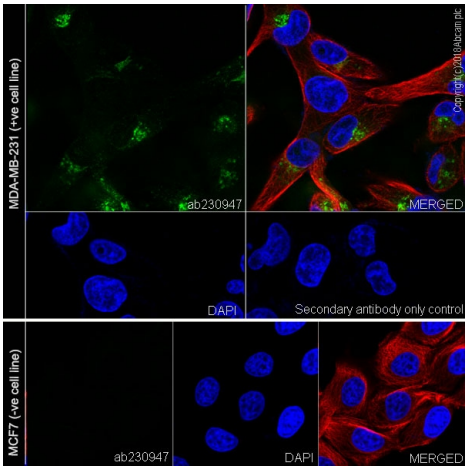
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) at 1/10000 dilution

Predicted band size: 42 kDa
Observed band size: 47 kDa

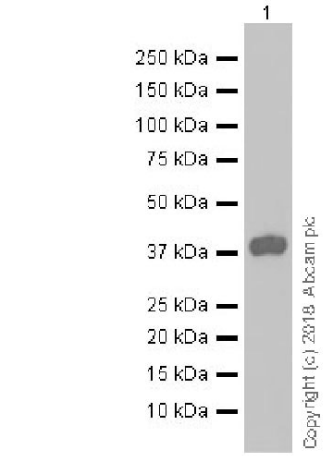
Lanes 1-4: Merged signal (red and green). Green - ab230947 observed at 47 kDa. Red - loading control **ab8245** observed at 36 kDa.

ab230947 Anti-CYR61/CCN1 antibody [EPR20681] was shown to specifically react with CYR61/CCN1 in wild-type HeLa cells. Loss of signal was observed when knockout cell line **ab265288** (knockout cell lysate **ab257406**) was used. Wild-type and CYR61/CCN1 knockout samples were subjected to SDS-PAGE. ab230947 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 500 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-CYR61/CCN1 antibody [EPR20681] (ab230947)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized MDA-MB-231 (human breast adenocarcinoma epithelial cell) cells labeling CYR61/CCN1 with ab230947 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining in the MDA-MB-231 cell line. **Negative control:** MCF7 (PMID: 11059746). The nuclear counter stain is DAPI (blue). Counterstained with **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at a 1/200 dilution (red). The negative control is the secondary antibody only.



Western blot - Anti-CYR61/CCN1 antibody [EPR20681] (ab230947)

Anti-CYR61/CCN1 antibody [EPR20681] (ab230947) at 1/5000 dilution + MDA-MB-231 (human breast adenocarcinoma epithelial cell), whole cell lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

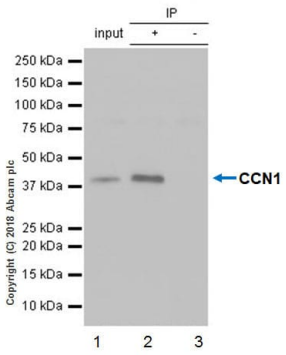
Predicted band size: 42 kDa

Observed band size: 42 kDa

Exposure time: 3 minutes

Blocking/ Dilution buffer concentration: 5% NFDM/TBST.

The molecular mass observed is consistent with that of the full-length protein (42 kDa) (PMID: 23798676).



Immunoprecipitation - Anti-CYR61/CCN1 antibody [EPR20681] (ab230947)

CYR61/CCN1 was immunoprecipitated from 0.35 mg Saos-2 (human osteosarcoma epithelial) whole cell lysate with ab230947 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab230947 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/1000 dilution.

Lane 1: Saos-2 (human osteosarcoma epithelial) whole cell lysate 10 µg (Input).

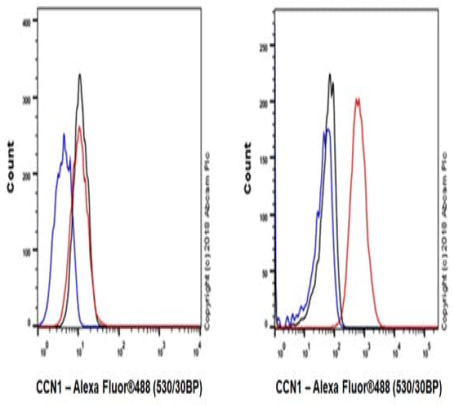
Lane 2: ab230947 IP in Saos-2 whole cell lysate (+).

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab230947 in Saos-2 whole cell lysate (-).

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 8 seconds.

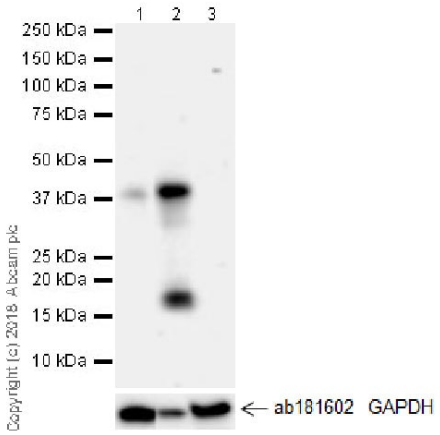
The molecular mass observed is consistent with that of the full-length protein (42 kDa) (PMID: 23798676).



Flow Cytometry (Intracellular) - Anti-CYR61/CCN1 antibody [EPR20681] (ab230947)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized MCF7 (human breast adenocarcinoma epithelial cell, Left) / MDA-MB-231 (human breast adenocarcinoma epithelial cell, Right) cell line labeling CYR61/CCN1with ab230947 at 1/60 (red) compared with a Rabbit monoclonal IgG (**ab172730**) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti rabbit IgG (Alexa Fluorï¿½ 488, **ab150077**), at 1/2000 dilution was used as the secondary antibody.

Negative control: MCF7 (PMID: 11059746).



Western blot - Anti-CYR61/CCN1 antibody [EPR20681] (ab230947)

All lanes : Anti-CYR61/CCN1 antibody [EPR20681] (ab230947) at 1/1000 dilution

Lane 1 : PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate
Lane 2 : Saos-2 (human osteosarcoma epithelial) whole cell lysate
Lane 3 : MCF7 (human breast adenocarcinoma epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

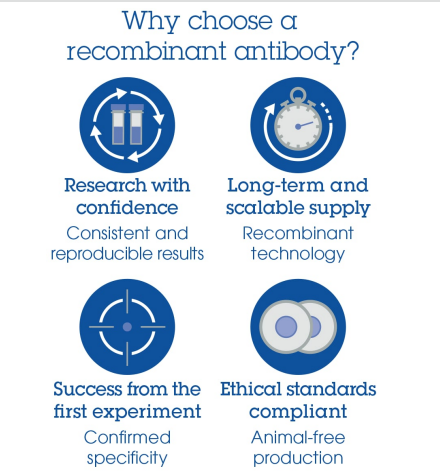
Predicted band size: 42 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer concentration: 5% NFDM/TBST.

The expression profile observed is consistent with the literature, with the 42 kDa band being the full-length protein and the 19 kDa band likely a degradation product (PMID: 23798676; PMID: 16266990; PMID: 8657105).

Negative control: MCF7 (PMID 11059746).



Anti-CYR61/CCN1 antibody [EPR20681] (ab230947)

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