Store at -20°C

#14479

CYR61 (D4H5D) XP® Rabbit mAb

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New 09/14

Entrez-Gene ID #3491
UniProt ID #000622

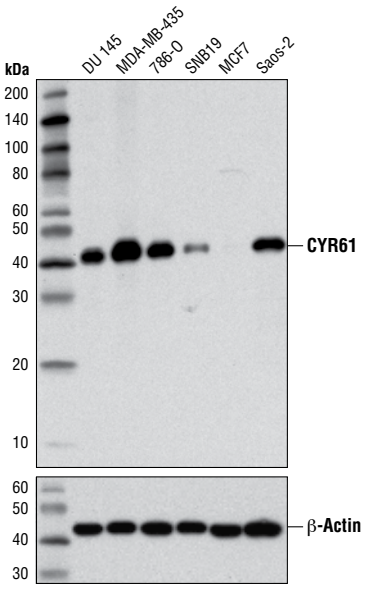
For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IF-IC, F Endogenous	H	41 kDa	Rabbit IgG**

Background: Cysteine-rich protein 61 (CYR61, CCN1) is a secreted, matrix-associated protein belonging to the CCN family, a protein group characterized primarily by its high cysteine content (1). CYR61 regulates diverse cellular events including cell proliferation, differentiation, angiogenesis, and extracellular matrix formation. Research studies have implicated CYR61 in the development or progression of various cancers, including breast, prostate, lung, and hepatocellular carcinoma (1-4). Notably, its role in promoting cancer progression appears to be context-dependent. For example, investigators have shown that overexpression of CYR61 was positively associated with invasiveness of breast cancer cell lines (2), whereas in primary prostate tumors, expression levels were inversely correlated with tumor aggressiveness (3). In additional research studies of hepatocellular carcinoma, where CYR61 expression was positively associated with cancer progression, CYR61 was shown to be transcriptionally regulated by the Wnt/β-catenin signaling pathway (1).

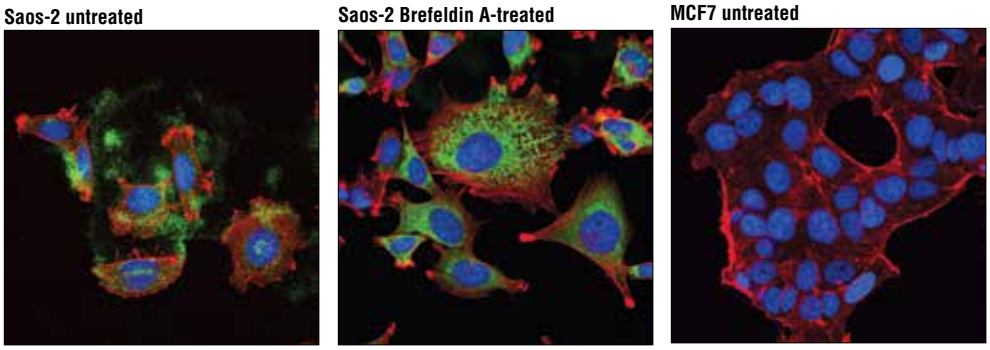
Specificity/Sensitivity: CYR61 (D4H5D) XP® Rabbit mAb recognizes endogenous levels of total CYR61 protein. This antibody does not cross-react with other CCN-family proteins.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro171 of human CYR61 protein.



Western blot analysis of extracts from various cell lines using CYR61 (D4H5D) XP® Rabbit mAb (upper) and β-Actin (D6A8) Rabbit mAb #8457(lower). As expected, MCF7 cells are negative for CYR61 expression.

Saos-2 untreated | **Saos-2 Brefeldin A-treated** | **MCF7 untreated**



Confocal immunofluorescent analysis of Saos-2 cells, untreated (left) or treated with Brefeldin A #9972 (10 µg/ml, overnight; center), and untreated MCF7 cells (right), using CYR61 (D4H5D) XP® Rabbit mAb (green). Actin filaments were labeled with DyLight™ 554 Phalloidin #13054 (red). Blue pseudocolor = DRAQ5® #4804 (fluorescent DNA dye).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunofluorescence (IF-IC)	1:100
IF Protocol:	Methanol Permeabilization required
Flow Cytometry	1:50

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

Background References:

(1) Li, Z.Q. et al. (2012) *PLoS One* 7, e35754.

(2) Menéndez, J.A. et al. (2003) *Endocr Relat Cancer* 10, 141-52.

(3) Terada, N. et al. (2012) *Asian J Androl* 14, 405-8.

(4) Chen, P.P. et al. (2007) *PLoS One* 2, e534.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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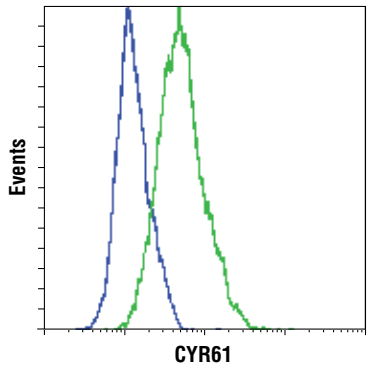
Cell Signaling TECHNOLOGY®



Flow cytometric analysis of 293T cells (blue) and PANC-1 cells (green) using CYR61 (D4H5D) XP® Rabbit mAb. Anti-rabbit IgG (H+L), F(ab')$_2$ Fragment (Alexa Fluor® 488 Conjugate) #4412 was used as a secondary antibody.