

## Product datasheet

# Anti-Gelsolin antibody [GS-2C4] ab11081

**KO** VALIDATED

★★★★★ [6 Abreviews](#) [20 References](#) [4 Images](#)

### Overview

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<b>Product name</b>	Anti-Gelsolin antibody [GS-2C4]
<b>Description</b>	Mouse monoclonal [GS-2C4] to Gelsolin
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC/IF, IP
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Full length native protein (purified) corresponding to Human Gelsolin. Database link: <a href="#">P06396-1</a>
<b>Epitope</b>	The antibody is directed against an epitope located on the 47 kD peptide derived from a chymotryptic cleavage of gelsolin. This peptide contains the carboxy terminal actin binding site for gelsolin.
<b>Positive control</b>	IP: U-2 OS cell lysate. WB: HeLa cell lysate.
<b>General notes</b>	<p>This product was changed from ascites to tissue culture supernatant on 17 May 2019. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	Preservative: 0.097% Sodium azide
<b>Purity</b>	Tissue culture supernatant

<b>Clonality</b>	Monoclonal
<b>Clone number</b>	GS-2C4
<b>Isotype</b>	IgG1

## Applications

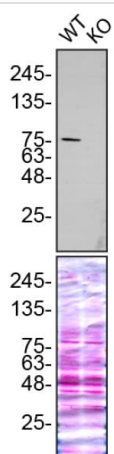
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab11081 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (4)	Use at an assay dependent concentration. Predicted molecular weight: 86 kDa.
ICC/IF		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.

## Target

<b>Function</b>	Calcium-regulated, actin-modulating protein that binds to the plus (or barbed) ends of actin monomers or filaments, preventing monomer exchange (end-blocking or capping). It can promote the assembly of monomers into filaments (nucleation) as well as sever filaments already formed. Plays a role in ciliogenesis.
<b>Tissue specificity</b>	Phagocytic cells, platelets, fibroblasts, nonmuscle cells, smooth and skeletal muscle cells.
<b>Involvement in disease</b>	Defects in GSN are the cause of amyloidosis type 5 (AMYL5) [MIM:105120]; also known as familial amyloidosis Finnish type. AMYL5 is a hereditary generalized amyloidosis due to gelsolin amyloid deposition. It is typically characterized by cranial neuropathy and lattice corneal dystrophy. Most patients have modest involvement of internal organs, but severe systemic disease can develop in some individuals causing peripheral polyneuropathy, amyloid cardiomyopathy, and nephrotic syndrome leading to renal failure.
<b>Sequence similarities</b>	Belongs to the villin/gelsolin family. Contains 6 gelsolin-like repeats.
<b>Post-translational modifications</b>	Phosphorylation on Tyr-86, Tyr-409, Tyr-465, Tyr-603 and Tyr-651 in vitro is induced in presence of phospholipids.
<b>Cellular localization</b>	Cytoplasm > cytoskeleton and Secreted.

## Images



Western blot - Anti-Gelsolin antibody [GS-2C4] (ab11081)

**All lanes** : Anti-Gelsolin antibody [GS-2C4] (ab11081) at 1/200 dilution

**Lane 1** : Wild-type HeLa cell lysate

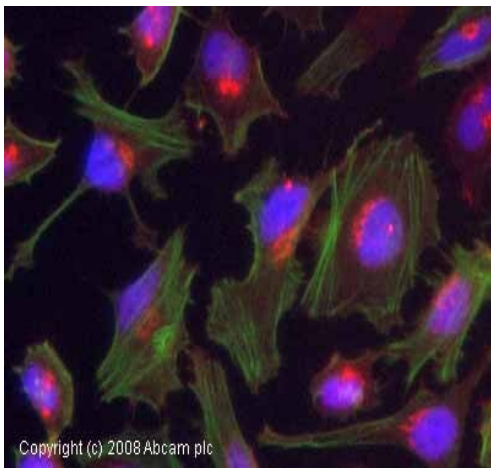
**Lane 2** : GSN knockout HeLa cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

**Predicted band size:** 86 kDa

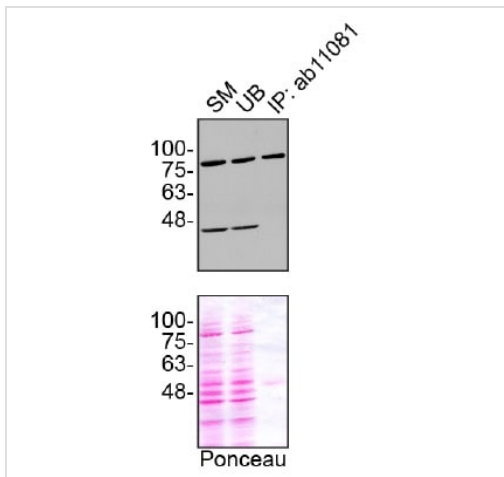
ab11081 was shown to react with GSN in wild-type HeLa cells in Western blot with loss of signal observed in GSN knockout cell line [ab265201](#) (GSN knockout cell lysate [ab257204](#)). Wild-type HeLa and GSN knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 5% milk in TBST for 1 hr before incubation with ab11081 overnight at 4 °C at a 1/200 dilution. Blots were incubated with goat anti-mouse HRP secondary antibodies at 1/5000 before imaging. This data was kindly provided by the YCharOS Inc., an open science company with the mission of characterizing every commercially available antibody reagent. Abcam are working with YCharOS to support their mission of antibody characterisation using knockout cell lines.



Immunocytochemistry/ Immunofluorescence - Anti-Gelsolin antibody [GS-2C4] (ab11081)

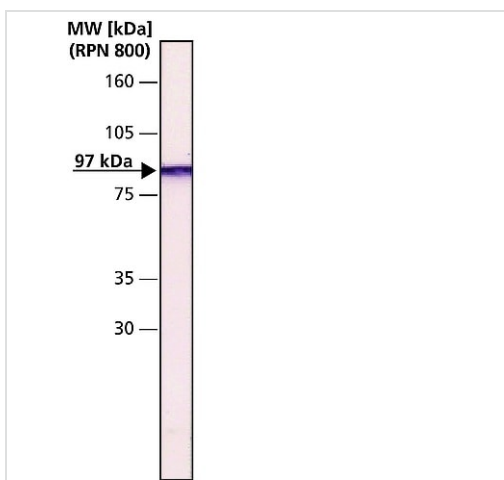
ICC/IF image of ab11081 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1% BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab11081, 1 µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue). This antibody also gave a positive IF result in Hek293, HepG2 and MCF7 cells.

This image was generated using the ascites version of the product.



Immunoprecipitation - Anti-Gelsolin antibody [GS-2C4] (ab11081)

Immunoprecipitation of GSN in U-2 OS cells. Lysates were prepared and immunoprecipitation was performed using 1.0 µg of ab11081 pre-coupled to beads. Samples were washed and processed for western blot with ab11081. SM=10% starting material; UB=10% unbound fraction; IP=immunoprecipitate. These data were provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.



Western blot - Anti-Gelsolin antibody [GS-2C4] (ab11081)

Anti-Gelsolin antibody [GS-2C4] (ab11081) at 1/2000 dilution + Human Plasma

### Secondary

AP conjugated anti-mouse Fab IgG

Performed under reducing conditions.

**Predicted band size:** 86 kDa

This image was generated using the ascites version of the product.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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