

# VCP Monoclonal Antibody (5)

Product Details	
Size	100 µg
Species Reactivity	Human, Mouse, Rat
Published Species	Yeast, Human, Mouse
Host/Isotype	Mouse / IgG2a
Class	Monoclonal
Type	Antibody
Clone	5
Conjugate	Unconjugated
Immunogen	Synthetic peptide corresponding to residues C G(792) G S V Y T E D N D D D L Y G(806) of mouse VCP.
Form	Liquid
Concentration	1.0 mg/mL
Purification	Protein G
Storage buffer	PBS, pH 7.4, with 1mg/mL BSA
Contains	0.05% sodium azide
Storage conditions	-20° C, Avoid Freeze/Thaw Cycles
RRID	AB_2214638

Applications	Tested Dilution	Publications
Western Blot (WB)	1:1,000	19 Publications
Immunohistochemistry (IHC)	-	10 Publications
Immunohistochemistry (Paraffin) (IHC (P))	1:500	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	1:500	-
Immunocytochemistry (ICC/IF)	1:20-1:200	6 Publications
Flow Cytometry (Flow)	1/400	-
Immunoprecipitation (IP)	Assay-dependent	4 Publications

## Product Specific Information

MA3-004 detects VCP protein in human, mouse, and rat samples.

MA3-004 has successfully been used in Western blot immunoprecipitation, and immunohistochemical procedures. By Western blot, this antibody detects an ~97 kDa protein representing VCP from total lysate of cultured human B cells.

The MA3-004 immunogen is a synthetic peptide corresponding to residues C G(792) G S V Y T E D N D D D L Y G(806) of mouse VCP. This peptide (Cat. # PEP-239) is available for use in neutralization and control experiments.

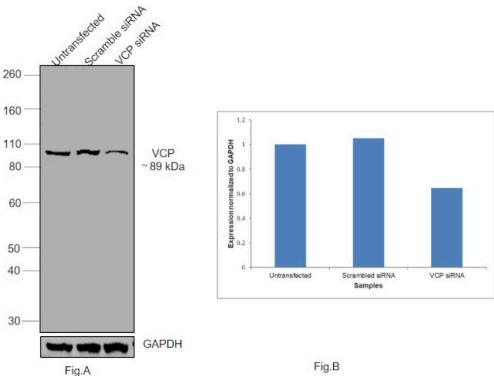
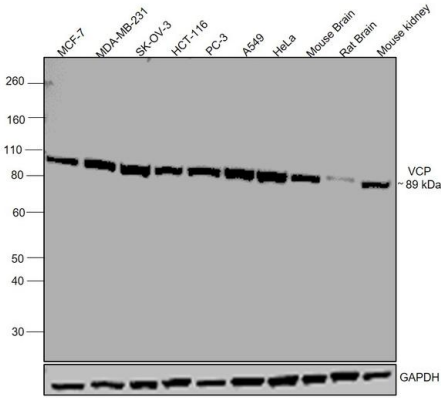
Product Images For VCP Monoclonal Antibody (5)

VCP Antibody (MA3-004) in WB

Western blot was performed using Anti-VCP Polyclonal Antibody (Product # MA3-004) and a 89 kDa band corresponding to VCP was observed in across all tested cell lines and tissues. Whole cell extracts (30 µg lysate) of MCF-7 (Lane 1), MDA-MB-231 (Lane 2), SK-OV-3 (Lane 3), HCT-116 (Lane 4), PC-3 (Lane 5), A549 (Lane 6), HeLa (Lane 7), Mouse brain (Lane 8), Rat brain (Lane 9), Mouse Kidney (Lane 10) were electrophoresed using NuPAGE® 4-12 % Bis-Tris gel (Product # NP0321BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:1000 dilution) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L), Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1: 4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005)..

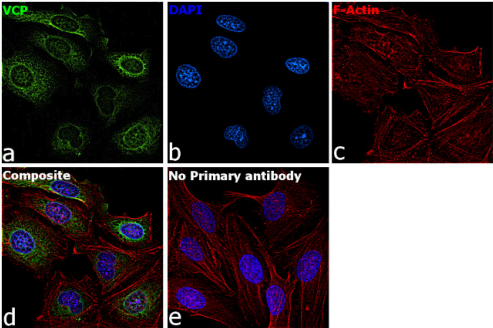
VCP Antibody (MA3-004)

Antibody specificity was demonstrated by siRNA mediated knockdown of target protein. MCF-7 cells were transfected with VCP siRNA and reduction of signal was observed in Western Blot using VCP Polyclonal Antibody (Product # MA3-004). {KD}



VCP Antibody (MA3-004) in ICC/IF

Immunofluorescence analysis of VCP was performed using HeLa cells. The cells were fixed and permeabilized with ice cold 100% Acetone for 5 minutes, and blocked with 2% BSA for 1 hour at room temperature. The cells were labeled with VCP Monoclonal Antibody (5) (Product # MA3-004) at 5 microgram/mL concentration in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, Alexa Fluor® 488 (Product # A28175) for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing cytoplasmic localization. Panel e represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.



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## Western Blot (19)

<p><b>Cells</b></p> <p><b>Impacts of p97 on Proteome Changes in Human Cells during Coronavirus Replication.</b></p> <p>"MA3-004 was used in Western Blot to indicate a role for the essential host protein p97 in supporting HCoV replication, suggesting that p97 is a therapeutic target to treat HCoV infection."</p> <p>Authors: Cheng KW,Li S,Wang F,Ruiz-Lopez NM,Houerbi N,Chou TF</p>	<p><b>Year</b> 2021</p> <p><b>Species</b> Human</p>
<p><b>Cells</b></p> <p><b>Functional Inhibition of Valosin-Containing Protein Induces Cardiac Dilation and Dysfunction in a New Dominant-Negative Transgenic Mouse Model.</b></p> <p>"MA3-004 was used in Western Blot, Immunoprecipitation to determine the effects of impaired VCP activity on the heart."</p> <p>Authors: Sun X,Zhou N,Ma B,Wu W,Stoll S,Lai L,Qin G,Qiu H</p>	<p><b>Year</b> 2021</p> <p><b>Species</b> Mouse</p>

[View more WB references on thermofisher.com](#)

## Immunohistochemistry (10)

<p><b>Neuropathology : official journal of the Japanese Society of Neuropathology</b></p> <p><b>An autopsy case of amyotrophic lateral sclerosis with striatonigral and pallidoluysian degeneration and cat's-eye-shaped neuronal nuclear inclusions.</b></p> <p>"Published figure using VCP monoclonal antibody (Product # MA3-004) in Immunohistochemistry"</p> <p>Authors: Kon T,Mori F,Kinoshita I,Nakamura T,Nishijima H,Suzuki C,Goto S,Kijima H,Tomiyama M,Wakabayashi K</p>	<p><b>Year</b> 2022</p>
<p><b>Neurology. Genetics</b></p> <p><b>PFKM gene defect and glycogen storage disease GSDVII with misleading enzyme histochemistry.</b></p> <p>"MA3-004 was used in Immunohistochemistry to suggest that glycogen storage disease type VII cannot be excluded by normal enzyme histochemistry previously used as the gold standard for diagnosis."</p> <p>Authors: Auranen M,Palmio J,Ylikallio E,Huovinen S,Paetau A,Sandell S,Haapasalo H,Viitaniemi K,Piirilä P,Tyynismaa H,Udd B</p>	<p><b>Year</b> 2015</p> <p><b>Species</b> Human</p>

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## More applications with references on thermofisher.com

- IHC (P) (1)
- ICC/IF (6)
- IP (4)

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