

For Research Use Only

VCP Monoclonal antibody

Catalog Number: 60316-1-Ig

Featured Product

6 Publications



Basic Information

Catalog Number:

60316-1-Ig

Concentration:

1000 ug/ml

Source:

Mouse

Isotype:

IgG1

Immunogen Catalog Number:

AG1002

GenBank Accession Number:

BC007562

GeneID (NCBI):

7415

UNIPROT ID:

P55072

Full Name:

valosin-containing protein

Calculated MW:

89 kDa

Observed MW:

89 kDa

Purification Method:

Protein G purification

CloneNo.:

2A4B10

Recommended Dilutions:

WB: 1:500-1:2000

IHC: 1:500-1:2000

IF/ICC: 1:400-1:1600

FC (Intra): 0.40 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IHC, IF/ICC, FC (Intra), ELISA

Cited Applications:

WB, IF, ChIP

Species Specificity:

human, mouse

Cited Species:

human

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB: RAW 264.7 cells, WT and VCP KO U2OS cells, SH-SY5Y cells, HeLa cells

IHC: human colon cancer tissue, human lung cancer tissue, human ovary tumor tissue, human pancreas cancer tissue, human stomach cancer tissue, mouse brain tissue, mouse colon tissue

IF/ICC: HeLa cells, SH-SY5Y cells

FC (Intra): HL-60 cells,

Background Information

VCP (Valosin-containing protein), also known as TER ATPase and 15S Mg²⁺-ATPase p97 subunit, belongs to the AAA ATPase family. VCP was first identified as a result of attempts to clone a putative peptide hormone called valosin. It was found that the cloned cDNA encoded a ubiquitously expressed 90 kDa cytosolic protein, termed VCP, which showed none of the characteristics of a peptide hormone precursor (PMID:1382975). Defects in VCP are the cause of inclusion body myopathy with early-onset Paget disease and frontotemporal dementia (IBMPFD) and amyotrophic lateral sclerosis type 14 with or without frontotemporal dementia (ALS14). VCP has a calculated molecular weight of 89 kDa and an apparent molecular weight of 90-100 kDa (PMID: 15732117, 1382975).

Notable Publications

| Author | Pubmed ID | Journal | Application |
|--------------|-----------|--------------------|-------------|
| Janja Božič | 34534264 | Brain | WB, IF |
| Xiao-Jing Li | 33495516 | Acta Pharmacol Sin | WB |
| Lidia Wrobel | 38701207 | Sci Adv | WB |

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

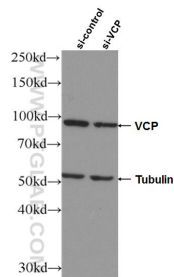
T: 4006900926

E: Proteintech-CN@ptglab.com

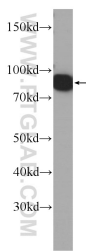
W: ptgcn.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

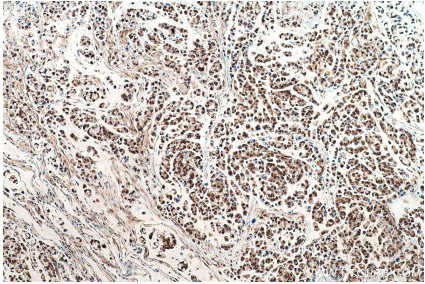
Selected Validation Data



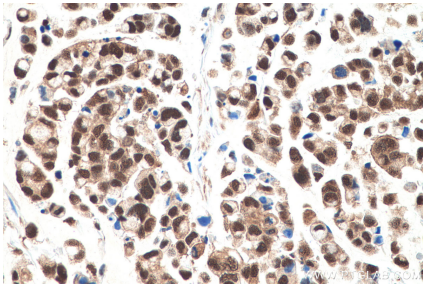
WB result of VCP antibody (60316-1-Ig; 1:5000; incubated at room temperature for 1.5 hours) with sh-Control and sh-VCP transfected HeLa cells.



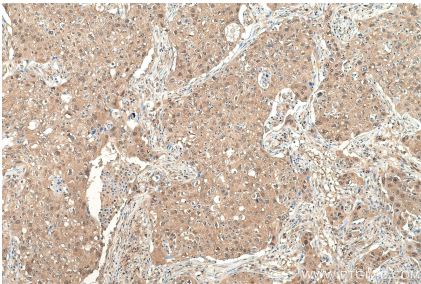
RAW 264.7 cells were subjected to SDS PAGE followed by western blot with 60316-1-Ig (VCP Antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



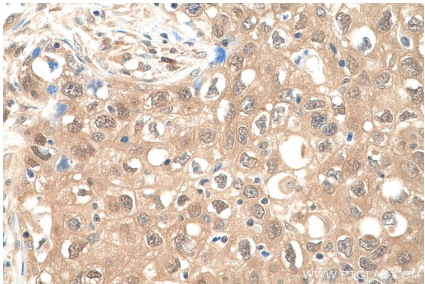
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 60316-1-Ig (VCP antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



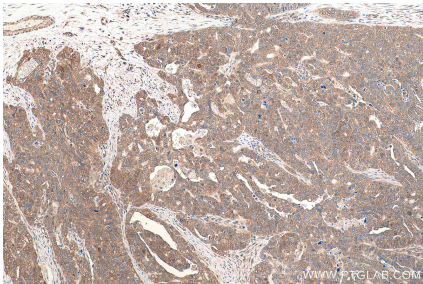
Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 60316-1-Ig (VCP antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



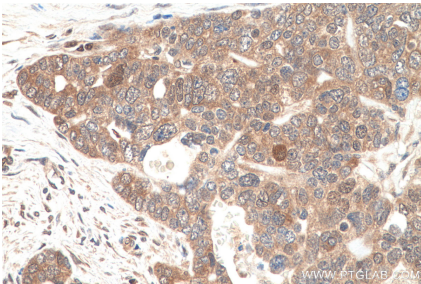
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 60316-1-Ig (VCP antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



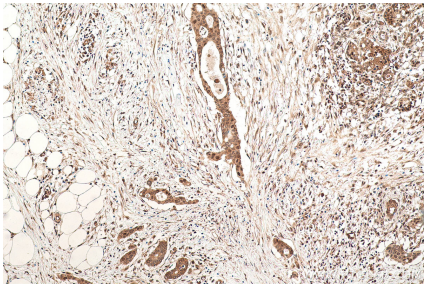
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 60316-1-Ig (VCP antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



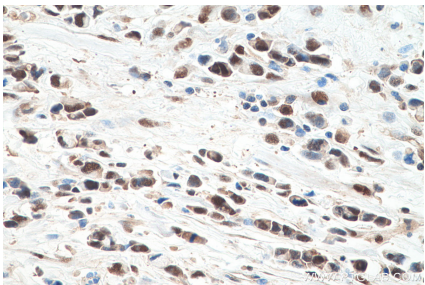
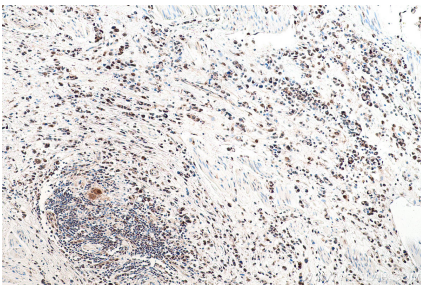
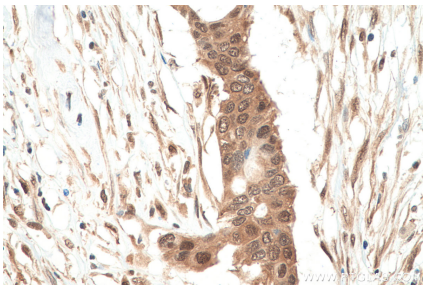
Immunohistochemical analysis of paraffin-embedded human ovary tumor tissue slide using 60316-1-Ig (VCP antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human ovary tumor tissue slide using 60316-1-Ig (VCP antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



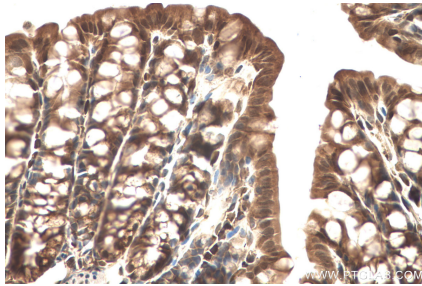
Immunohistochemical analysis of paraffin-embedded human pancreas cancer tissue slide using 60316-1-Ig (VCP antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



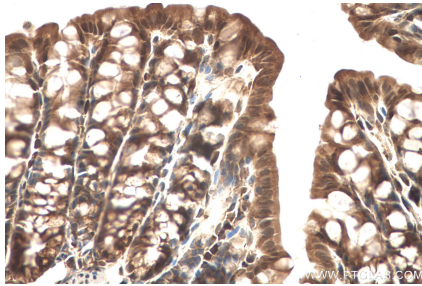
Immunohistochemical analysis of paraffin-embedded human pancreas cancer tissue slide using 60316-1-Ig (VCP antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



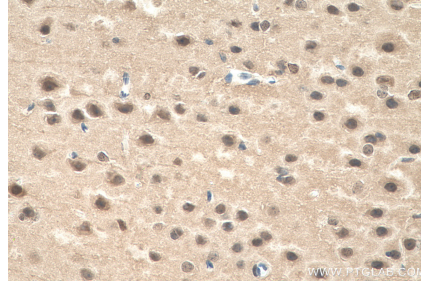
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 60316-1-Ig (VCP antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



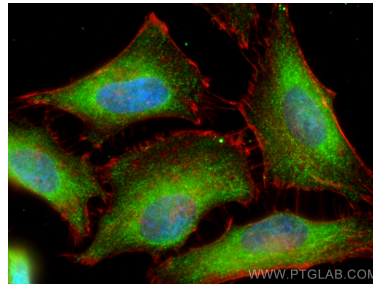
Immunohistochemical analysis of paraffin-embedded mouse colon tissue slide using 60316-1-Ig (VCP antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 60316-1-Ig (VCP antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 60316-1-Ig (VCP antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

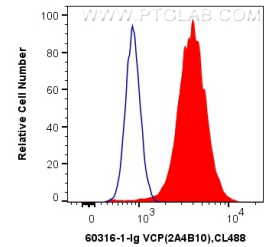


Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using VCP antibody (60316-1-Ig, Clone: 2A4B10) at dilution of 1:800 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), CL594-Phalloidin (red).

Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 60316-1-Ig (VCP antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse colon tissue slide using 60316-1-Ig (VCP antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10⁶ HL-60 cells were intracellularly stained with 0.4 ug Anti-Human VCP (60316-1-Ig, Clone:2A4B10) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).