

VCP antibody

Catalog No: #38469



Package Size: #38469-1 50ul #38469-2 100ul

Orders: order@signalwayantibody.com

Support: tech@signalwayantibody.com

Description

Product Name	VCP antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB IHC IF
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of total VCP protein.
Immunogen Type	Peptide
Immunogen Description	A synthetic peptide of human VCP.
Target Name	VCP
Other Names	VCP;IBMPFD;MGC131997;MGC148092;MGC8560;TERA;p97;
Accession No.	Swiss-Prot#: P55072NCBI Gene ID: 7415
SDS-PAGE MW	71kd
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

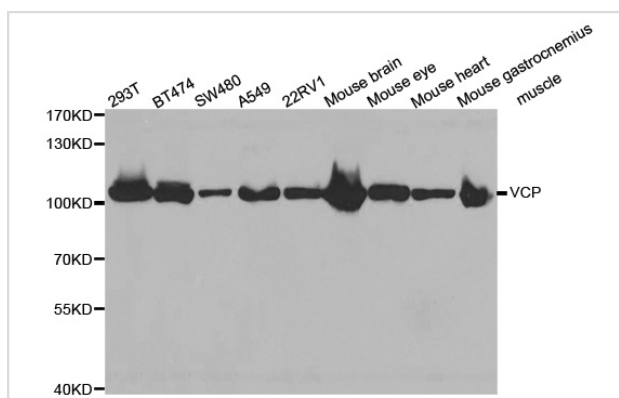
Application Details

Western blotting: □1:500 - 1:2000

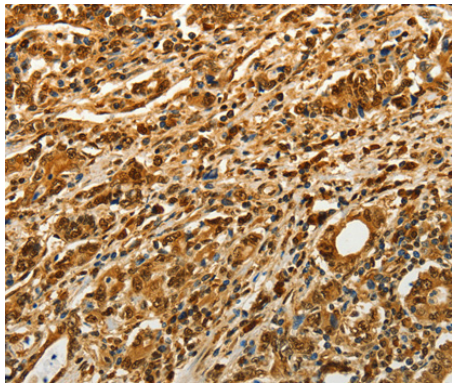
Immunohistochemistry: □1:50 - 1:100

Immunofluorescence: □1:50 - 1:100

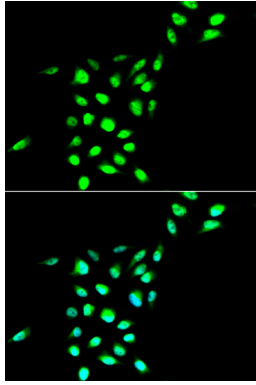
Images



Western blot analysis of extracts of various cell lines, using VCP antibody.



Immunohistochemistry analysis of paraffin-embedded human gastric cancer tissue using VCP antibody.



Immunofluorescence analysis of A549 cell using VCP antibody. Blue: DAPI for nuclear staining.

Background

Valosin-containing protein (VCP) is a highly conserved and abundant 97 kDa protein that belongs to the AAA (ATPase associated with a variety of cellular activities) family of proteins. VCP assembles as a homo-hexamers, forming a ring with a channel at its center (1,2,3). VCP homo-hexamers associate with a variety of protein cofactors to form many distinct protein complexes, which act as chaperones to unfold proteins and transport them to specific cellular compartments or to the proteasome (4). These protein complexes participate in many cellular functions, including vesicle transport and fusion, fragmentation and reassembly of the golgi stacks during mitosis, nuclear envelope formation and spindle disassembly following mitosis, cell cycle regulation, DNA damage repair, apoptosis, B- and T-cell activation, NF- κ B-mediated transcriptional regulation, endoplasmic reticulum (ER)-associated degradation and protein degradation (4). VCP appears to localize mainly to the endoplasmic reticulum; however, tyrosine phosphorylation is associated with relocalization to the centrosome during mitosis (5). In addition, following cellular exposure to ionizing radiation, VCP is phosphorylated at Ser784 in an ATM-dependent manner and accumulates in the nucleus at sites of double-stranded DNA breaks (DSBs) (6). Exposure to other types of DNA damaging agents such as UV light, bleomycin or doxorubicin results in phosphorylation of VCP by ATR and DNA-PK in an ATM-independent manner (6).

Note: This product is for in vitro research use only and is not intended for use in humans or animals.