SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Mouse Anti-VCP antibody

SLM-51577M

Product Name	VCP
Chinese Name	含缬酪肽蛋白单克隆抗体
Alias	valosin-containing protein; 15S Mg(2+) ATPase p97 subunit; ATPase p97; IBMPFD; MGC131997; MGC148092; MGC8560; p97; TER ATPase; TERA; transitional endoplasmic reticulum ATPase; valosin-containing protein; yeast Cdc48p homolog; Transitional endoplasmic reticulum ATPase; TER ATPase; 15S Mg(2+)-ATPase p97 subunit; p97; TERA_HUMAN.
Research Area	Tumour Neurobiology Signal transduction Growth factors and hormones Diabetes glycoprotein
Immunogen Species	Mouse
Clonality	Monoclonal
Clone NO.	F78
React Species	Human,Mouse,Rat
Applications	WB=1:500-2000,ICC/IF=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	97kDa
Cellular localization	The nucleus cytoplasmic
Form	Liquid
Concentration	1mg/ml
immunogen	Recombinant human VCP.
Lsotype	IgG1,κ
Purification	affinity purified by Protein G
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed PubMed

The protein encoded by this gene is a member of a family that includes putative ATP-binding proteins involved in vesicle transport and fusion, 26S proteasome function, and assembly of peroxisomes. This protein, as a structural protein, is associated with clathrin, and heat-shock protein Hsc70, to form a complex. It has been implicated in a number of cellular events that are regulated during mitosis, including homotypic membrane fusion, spindle pole body function, and ubiquitin-dependent protein degradation. [provided by RefSeq, Jul 2008]

Product Detail

Function:
Necessary for the fragmentation of Golgi stacks during mitosis and for their reassembly after mitosis. Involved in the formation of the transitional endoplasmic reticulum (tER). The transfer of membranes from the endoplasmic reticulum to the Golgi apparatus occurs via 50-70 nm transition vesicles which derive from part-rough, part-smooth transitional elements of the endoplasmic reticulum (tER). Vesicle budding from the tER is an ATP-dependent process. The ternary complex containing UFD1L, VCP and NPLOC4 binds ubiquitinated proteins and is necessary for the export of misfolded proteins from the ER to the cytoplasm, where they are degraded by the proteasome. The NPLOC4-UFD1L-VCP complex regulates spindle disassembly at the end of mitosis and is necessary for the formation of a closed nuclear envelope (By similarity). Regulates E3 ubiquitin-protein ligase activity of RNF19A.

Subcellular Location:
Cytoplasm > cytosol. Nucleus. Present in the neuronal hyaline inclusion bodies specifically found in motor neurons from amyotrophic lateral sclerosis patients. Present in the Lewy bodies specifically found in neurons from Parkinson disease patients.

Post-translational modifications:
Phosphorylated by tyrosine kinases in response to T-cell antigen receptor activation.
Phosphorylated upon DNA damage, probably by ATM or ATR. ISGylated.

DISEASE:
Defects in VCP are the cause of inclusion body myopathy with early-onset Paget disease and frontotemporal dementia (IBMPFD) [MIM:167320]; also known as muscular dystrophy, limb-girdle, with Paget disease of bone or pagetoid amyotrophic lateral sclerosis or pagetoid neuroskeletal syndrome or lower motor neuron degeneration with Paget-like bone disease. IBMPFD features adult-onset proximal and distal muscle weakness (clinically resembling limb girdle muscular dystrophy), early-onset Paget disease of bone

in most cases and premature frontotemporal dementia.

Similarity:
Belongs to the AAA ATPase family.

SWISS:
P55072

Gene ID:
7415

Database links:

Entrez Gene: 7415 Human

Entrez Gene: 269523 Mouse

Entrez Gene: 116643 Rat

Omim: 601023 Human

SwissProt: P55072 Human

SwissProt: Q01853 Mouse

SwissProt: P46462 Rat

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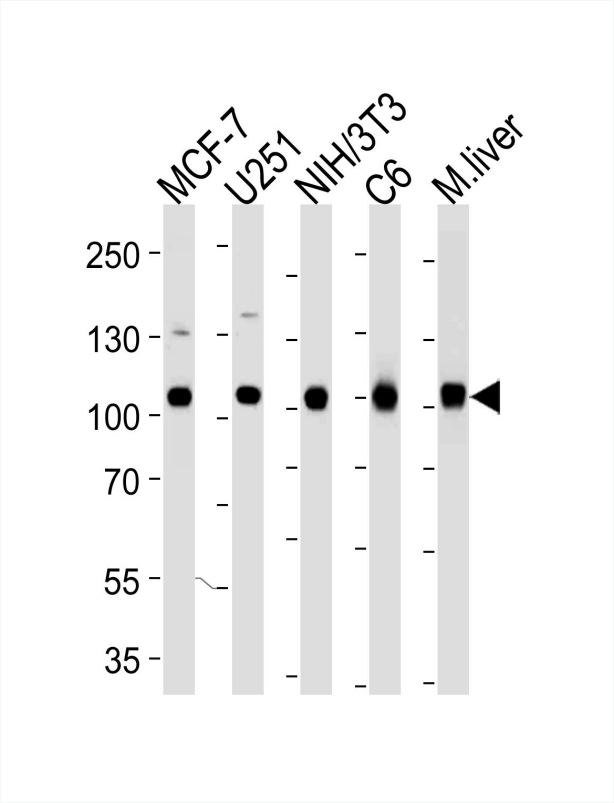
Product Picture



Sample:

Lane 1: MCF-7 cell lysates

Lane 2: U251 cell lysates

Lane 3: NIH/3T3 cell lysates

Lane 4: C6 cell lysates

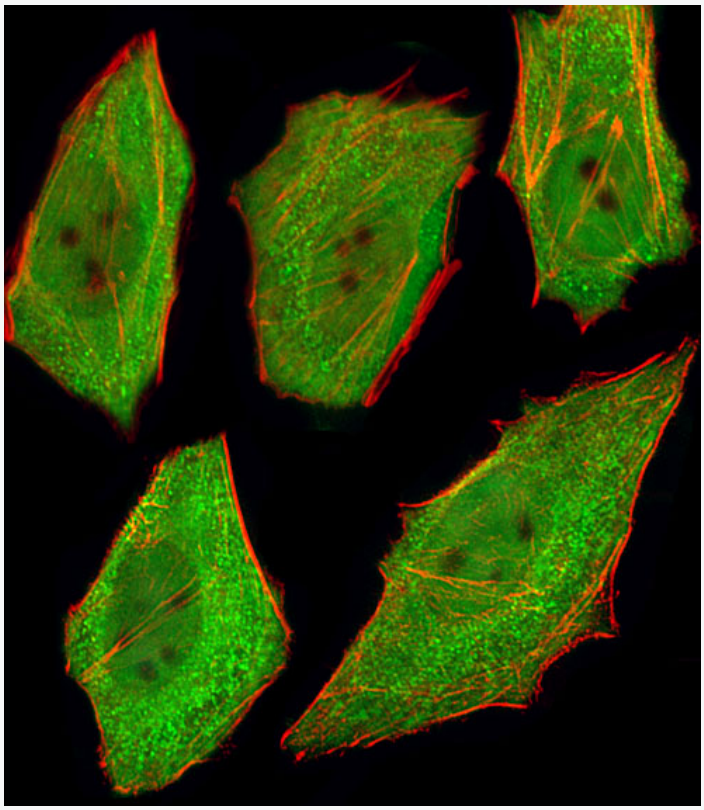
Lane 5: Mouse Liver tissue lysates

Primary: Anti-VCP (SLM-51577M) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/20000 dilution

Predicted band size: 97 kD

Observed band size: 105 kD



U251 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Antibody incubation with (VCP) monoclonal Antibody, Unconjugated (SLM-51577M) 1:25, 90 minutes at 37°C; followed by a conjugated Goat Anti-Mouse IgG antibody at 37°C for 90 minutes,Alexa Fluor® 555 conjugated with Phalloidin(red) was used to stain the cell Cytoplasmic actin.