

ARG55819 anti-VCP antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes VCP
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, WB
Host	Mouse
Clonality	Monoclonal
Clone	1344CT150.163.114
Isotype	IgG1, kappa
Target Name	VCP
Species	Human
Immunogen	Recombinant protein of Human VCP.
Conjugation	Un-conjugated
Alternate Names	VCP; IBMPFD; HEL-S-70; Valosin-containing protein; EC 3.6.4.6; Transitional endoplasmic reticulum ATPase; 15S Mg; TERA; p97; ALS14; HEL-220; IBMPFD1; TER ATPase; 2+

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:25
	WB	1:2000

Application Note * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

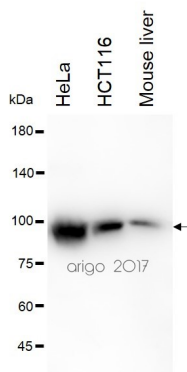
Properties

Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS and 0.09% (W/V) Sodium azide
Preservative	0.09% (W/V) Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

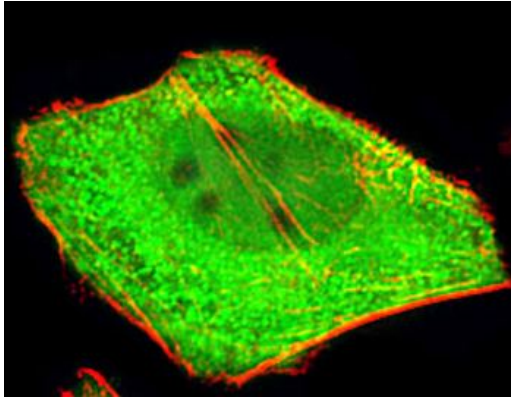
Gene Symbol	VCP
Gene Full Name	valosin containing protein
Background	The protein encoded by this gene is a member of a family that includes putative ATP-binding proteins involved in vesicle transport and fusion, 26S proteasome function, and assembly of peroxisomes. This protein, as a structural protein, 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]
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. Regulates E3 ubiquitin-protein ligase activity of RNF19A. Component of the VCP/p97-AMFR/gp78 complex that participates in the final step of the sterol-mediated ubiquitination and endoplasmic reticulum-associated degradation (ERAD) of HMGCR. Also involved in DNA damage response: recruited to double-strand breaks (DSBs) sites in a RNF8- and RNF168-dependent manner and promotes the recruitment of TP53BP1 at DNA damage sites. Recruited to stalled replication forks by SPRTN: may act by mediating extraction of DNA polymerase eta (POLH) to prevent excessive translesion DNA synthesis and limit the incidence of mutations induced by DNA damage. Required for cytoplasmic retrotranslocation of stressed/damaged mitochondrial outer-membrane proteins and their subsequent proteasomal degradation. [UniProt]
Calculated Mw	89 kDa
PTM	Phosphorylated by tyrosine kinases in response to T-cell antigen receptor activation. Phosphorylated in mitotic cells. ISGylated. Methylation at Lys-315 catalyzed by VCPKMT is increased in the presence of ASPSCR1. Lys-315 methylation may decrease ATPase activity.
Cellular Localization	Cytoplasm, Endoplasmic reticulum, Nucleus

Images



ARG55819 anti-VCP antibody WB image

Western blot: 30 µg of HeLa, HCT116 and Mouse liver lysates stained with ARG55819 anti-VCP antibody at 1:2000 dilution.



ARG55819 anti-VCP antibody ICC/IF image

Immunofluorescence: U251 cells stained with ARG55819 anti-VCP antibody (green) at 1:25 dilution. Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).