

Product datasheet

Anti-VCP antibody [Hs-14] ab3983

3 References 1 Image

Overview

Product name	Anti-VCP antibody [Hs-14]
Description	Mouse monoclonal [Hs-14] to VCP
Host species	Mouse
Specificity	The antibody Hs-14 reacts with VCP (valosin-containing protein) a 220 kDa protein previously identified under the general name "intra-acrosomal protein".
Tested applications	Suitable for: ICC, WB, Flow Cyt
Species reactivity	Reacts with: Mouse, Human
Immunogen	Tissue/ cell preparation (Human). Freshly ejaculated human sperms were washed in PBS and extracted in 3% acetic acid, 10% glycerol, 30 mM benzaminidine. The acid extract was dialyzed against 0.2% acetic acid and subsequently used for immunization.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	Preservative: 15mM Sodium Azide Constituents: PBS, pH 7.4
Purity	>95% by SDS-PAGE
Purification notes	Purified from ascites by gel filtration and precipitation methods.
Clonality	Monoclonal
Clone number	Hs-14
Isotype	IgM

Applications

Our [Abpromise guarantee](#) covers the use of **ab3983** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC		Use a concentration of 10 µg/ml. Staining technique: Membrane permeabilization (acetone) is essential. ab3983 is designed for quantitative immunofluorescence analysis of pathological sperms (excellent tool for laboratories of assisted reproduction when optimal method of fertilization is sought).
WB		Use at an assay dependent concentration. Predicted molecular weight: 220 kDa.
Flow Cyt		Use at an assay dependent concentration. ab91545 - Mouse monoclonal IgM, is suitable for use as an isotype control with this antibody.

Target

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.

Involvement in 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.

Sequence similarities

Belongs to the AAA ATPase family.

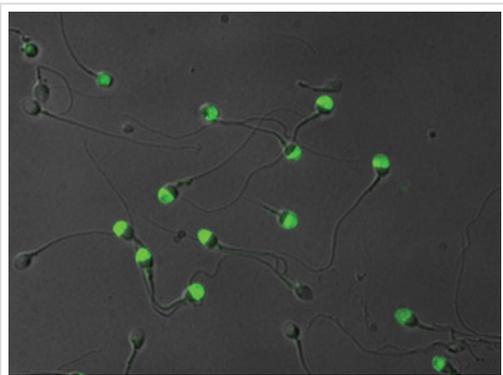
Post-translational modifications

Phosphorylated by tyrosine kinases in response to T-cell antigen receptor activation (By similarity). Phosphorylated upon DNA damage, probably by ATM or ATR. ISGylated.

Cellular localization

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.

Images



ab3983 at 10ug/ml staining 220kDa intra acrosomal protein in human sperms by ICC/IF. Cells were permeabilized with acetone.

Immunocytochemistry/ Immunofluorescence - Anti-VCP antibody [Hs-14] (ab3983)

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