Datasheet for ABIN1302844

anti-VCP antibody (FITC)

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Overview

Quantity:	50 tests
Target:	VCP
Reactivity:	Human, Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This VCP antibody is conjugated to FITC
Application:	Flow Cytometry (FACS)

Product Details

Purpose:	Anti-VCP FITC
Immunogen:	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.
Clone:	Hs-14
Isotype:	IgM
Specificity:	The antibody Hs-14 reacts with VCP (valosin-containing protein) a 220 kDa intra-acrosomal protein.
Cross-Reactivity (Details):	Mouse, Human
Purification:	Purified antibody is conjugated with fluorescein isothiocyanate (FITC) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.

Target Details

Target:	VCP
Alternative Name:	VCP (VCP Products)
Background:	Valosin containing protein,VCP (valosin-containing protein), also known as p97, TERA, ALS14, IBMPFD, HEL-220, IBMPFD1, or HEL-S-70, is a member of a protein family that includes putative ATP-binding proteins involved in vesicle transport and fusion, 26S proteasome function, and assembly of peroxisomes. VCP is a structural protein that associates 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. In sperm this intra-acrosomal protein can be used as a marker for evaluation of the physiological state of sperm cells as well as for selection of a suitable method of fertilization in the laboratories of assisted reproduction.,TERA, CDC48
Gene ID:	7415
UniProt:	P55072
Pathways:	ER-Nucleus Signaling, Positive Regulation of Endopeptidase Activity, Ubiquitin Proteasome Pathway

Application Details

Application Notes:	Flow cytometry: The reagent is designed for analysis of human blood cells using 20 µL reagent / 100 µL of whole blood or 10^6 cells in a suspension. The content of a vial (1 ml) is sufficient for 50 tests. Intraacrosomal staining.
Restrictions:	For Research Use only

Handling

Reconstitution:	No reconstitution is necessary.
Buffer:	Stabilizing Tris buffered saline (TBS), pH 8.0, 15 mM sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	**Do not freeze.** Avoid prolonged exposure to light.

Handling

Storage:	4 °C
Storage Comment:	Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze.

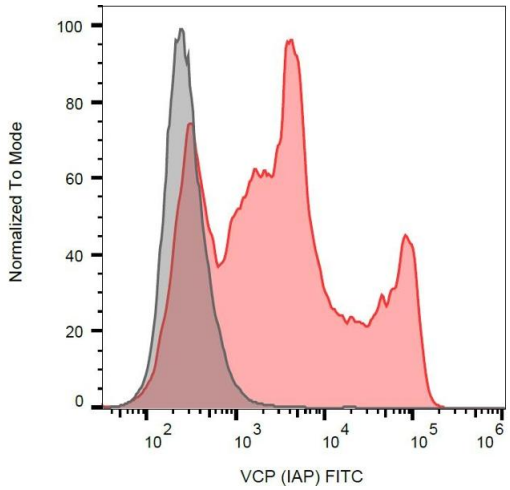
Publications

Product cited in:

Peknicova, Chladek, Hozak: "Monoclonal antibodies against sperm intra-acrosomal antigens as markers for male infertility diagnostics and estimation of spermatogenesis." in: **American journal of reproductive immunology (New York, N.Y. : 1989)**, Vol. 53, Issue 1, pp. 42-9, (2005) (PubMed).

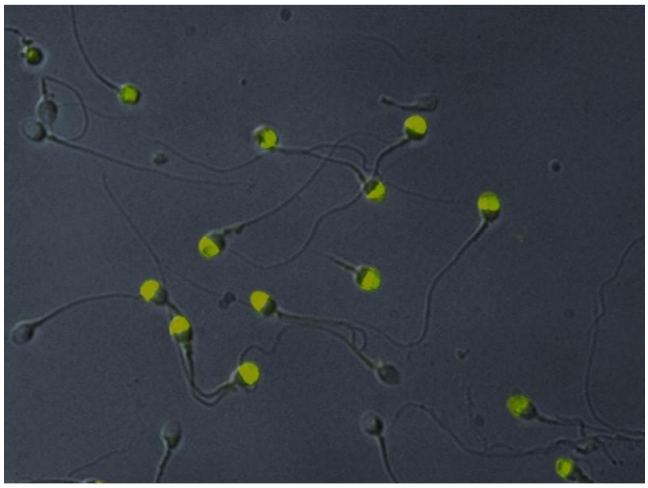
Chládek, P?knicová, Capková, Geussová, Teplá, Madar: "[Use of human sperm protein monoclonal antibodies in the diagnosis of sperm pathology and selection of a suitable assisted reproduction method for fertilization]." in: **Ceská gynekologie / Ceská lékarská spolecnost J. Ev. Purkyne**, Vol. 65, Issue 1, pp. 28-32, (2000) (PubMed).

Images



Flow Cytometry

Image 1. Separation of human sperm cells stained using anti-VCP (Hs-14) FITC antibody (concentration in sample 3 µg/mL, red) from unstained human sperm cells (black) in flow cytometry analysis (intracellular staining).



Immunofluorescence

Image 2. Immunofluorescence analysis of VCP in acetone-permeabilized human sperms using monoclonal antibody Hs-14 demonstrates its location to the acrosome. (Normal spermiogram shown).