

Datasheet for ABIN2430583

anti-ODF2 antibody[Go to Product page](#)**2** Validations**2** Images**2** Publications

Overview

Quantity:	200 µL
Target:	ODF2
Reactivity:	Human, Rat, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ODF2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC)

Product Details

Immunogen:	Recombinant protein of human ODF2
Isotype:	IgG
Purification:	Affinity purification

Target Details

Target:	ODF2
Alternative Name:	ODF2 (ODF2 Products)
Background:	The outer dense fibers are cytoskeletal structures that surround the axoneme in the middle piece and principal piece of the sperm tail. The fibers function in maintaining the elastic structure and recoil of the sperm tail as well as in protecting the tail from shear forces during epididymal transport and ejaculation. Defects in the outer dense fibers lead to abnormal sperm morphology and infertility. This gene encodes one of the major outer dense fiber proteins.

Target Details

Alternative splicing results in multiple transcript variants.

Molecular Weight: Calculated MW: 95 kDa

Pathways: [M Phase](#)

Application Details

Application Notes: WB 1:500-1:2000, IHC 1:25-1:100

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 0.3 mg/mL

Buffer: PBS with 0.05 % sodium azide and 50 % glycerol, PH7.4

Preservative: Sodium azide

Handling Advice: Avoid freeze / thaw cycles.

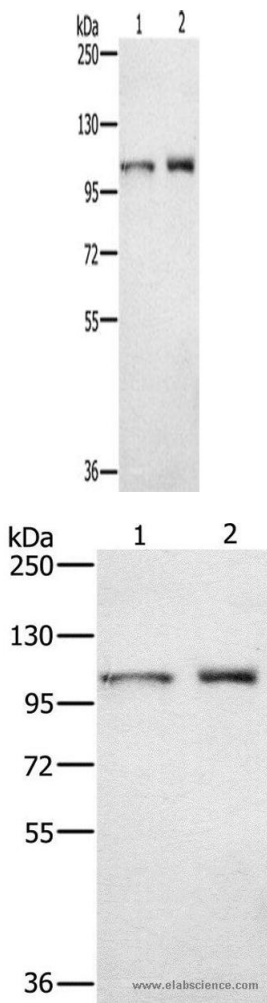
Storage: -20 °C

Storage Comment: Store at -20°C. Avoid freeze / thaw cycles.

Publications

Product cited in: Rahimi, Cai, Kılıç, Kazerouni, Tapia Contreras, Hoyer-Fender: "Expression of α -Tubulin Acetyltransferase 1 and Tubulin Acetylation as Selective Forces in Cell Competition." in: **Cells**, Vol. 10, Issue 2, (2021) ([PubMed](#)).

Tapia Contreras, Hoyer-Fender: "CCDC42 Localizes to Manchette, HTCA and Tail and Interacts With ODF1 and ODF2 in the Formation of the Male Germ Cell Cytoskeleton." in: **Frontiers in cell and developmental biology**, Vol. 7, pp. 151 ([PubMed](#)).



Western Blotting

Image 1.

Western Blotting

Image 2. Western blot analysis of Human testis tissue and K562 cell, using ODF2 Polyclonal Antibody at dilution of 1:650



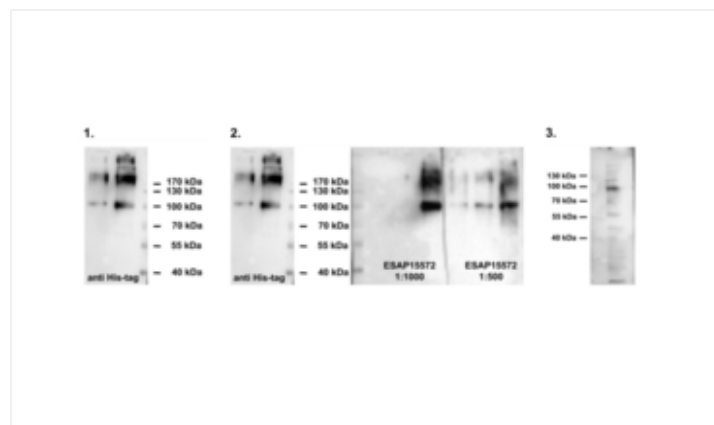
Successfully validated (Western Blotting (WB))

by [Georg-August-University of Göttingen, Johann-Friedrich-Blumenbach-Institute for Zoology and Anthropology, Developmental Biology](#)

Report Number: 100023

Date: May 03 2016

Target:	Outer Dense Fiber of Sperm Tails 2 (ODF2)
Method validated:	Western Blotting (WB)
Positive Control:	recombinant ODF2-His, bacterially expressed; NIH3T3 total cell lysate
Notes:	Passed, regarding sensitivity and specificity. The antibody detects bacterially expressed ODF2 (see 2)) and the endogenous protein (see 3)) with only moderate background staining in WB.
Primary Antibody:	ABIN2430582
Secondary Antibody:	anti rabbit IgG (H+L), HRP-linked (Jackson Immuno Research, Code number: 111-035-003, Lot number: 123450)
Protocol:	<ul style="list-style-type: none"> Proteins separated on 10% SDS-PAGE (Laemmli 1970), blotted to Protran (GE Healthcare No. 10600004, 0.2 µm) (Towbin et al., 1979). Blocking of membrane in 5% skim milk in TBST (50 mM Tris-HCl, pH 7.4, 150 mM NaCl, 0.1% Tween 20) for 30 min at room temperature. Incubation with first antibody in 5% skim milk in TBST at 4°C overnight. Washing in TBST for 30 minutes at room temperature. Incubation with secondary antibody in 5% skim milk in TBST for 45 minutes at room temperature. Washing in TBST for 30-45 minutes at room temperature. Secondary antibody: anti rabbit IgG (H+L), HRP-linked (Jackson Immuno Research, Code number: 111-035-003, Lot number: 123450). Dilution: 1:10,000. Chemiluminescence detection (Western Lightning Ultra, Lot 215-15091, Perkin Elmer) and image capture via BioRad Chemdoc or X-ray films.



Validation image no. 1 for anti-Outer Dense Fiber of Sperm Tails 2 (ODF2) antibody (ABIN2430582)

1. Positive control: protein ODF2-His, bacterially expressed, different amounts per lane, detection with anti His-Tag antibody (Novagen, 70796-3, Lot number N37164) (1:1,000). Secondary antibody anti mouse-HRP (Sigma-Aldrich A9044, Batch Number 034M4761) (1:10,000). 2. Test: protein ODF2-His, bacterially expressed, different amounts per lane, detection with anti ODF2 (ABIN2430582). 3. NIH3T3 total cell lysate (125µg/per lane), detection with anti ODF2 (ABIN2430582). Expected molecular weight of endogenous ODF2 <100kDa.



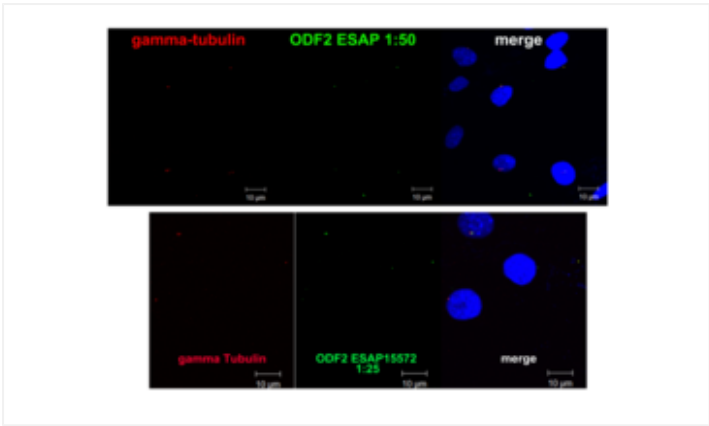
Successfully validated (Immunocytochemistry (ICC))

by [Georg-August-University of Göttingen, Johann-Friedrich-Blumenbach-Institute for Zoology and Anthropology, Developmental Biology](#)

Report Number: 100024

Date: May 03 2016

Target:	Outer Dense Fiber of Sperm Tails 2 (ODF2)
Method validated:	Immunocytochemistry (ICC)
Positive Control:	mouse anti- γ -tubulin (Sigma-Aldrich, clone GTU-88, T6557, lot number 072M4808)
Notes:	Passed, the antibody detects centrosomal ODF2 in immunocytological preparations with only very low background staining (the green dots are mostly the correct location of ODF2 as they overlap with γ -tubulin spots (in red)).
Primary Antibody:	ABIN2430582
Secondary Antibody:	MFP488 goat anti-rabbit IgG (H+L) (MoBiTec, #MFP-A1008)
Protocol:	<ul style="list-style-type: none"> NIH3T3 cells (ATCC) were grown on cover slips in DMEM, 10% fetal bovine serum, 5% penicillin/streptomycin (all Gibco) at 37°C in 5% CO₂. Cells were fixed in ice-cold methanol for 20 min at -20°C. Unspecific binding sites were blocked in PBST (phosphate buffered saline (PBS) containing 0.15% bovine serum albumin, 0.1% Tween-20) for 1 hr. Cells were incubated with the primary antibodies at 4°C overnight. Cells were washed in TBST (50 mM Tris-HCl, pH 7.4, 150 mM NaCl, 0.1% Tween 20) for 15 min. Cells were incubated with secondary antibodies and DAPI for 1h at 37°C. Cells were washed in TBST for 15 min. Cells were embedded in Dako Fluorescent Mounting Medium (Dako). As positive control for centrosomal decoration anti γ-tubulin (Sigma-Aldrich, clone GTU-88, T6557, lot number 072M4808; 1:100) was used. anti γ-tubulin was detected with MFP590 goat anti-mouse IgG (H+L) (MoBiTec, #MFP-A1032; 1:300). Anti ODF2-antibody was detected with MFP488 goat anti-rabbit IgG (H+L) (MoBiTec, #MFP-A1008; 1:300). DNA was counterstained with DAPI. Images were taken by confocal microscopy (LSM 510, Zeiss), and processed using Adobe Photoshop 5.0.



Validation image no. 1 for anti-Outer Dense Fiber of Sperm Tails 2 (ODF2) antibody (ABIN2430582)

Anti-ODF2 antibody ABIN2430582 (ESAP15572) is detected with a MFP488 goat anti-rabbit IgG (H+L) secondary antibody (green). The control mouse anti-γ-tubulin antibody is detected with a MFP590 goat anti-mouse secondary antibody (red). DNA is counterstained with DAPI (blue).