

Odf2 (L-20): sc-23135

BACKGROUND

The major cytoskeletal structures in the mammalian sperm tail are the outer dense fibers (ODF) and the fibrous sheath (FS). The ODFs are located on the outside of the axoneme, and they help maintain the passive elastic structures and elastic recoil of the sperm tail. Human ODFs consist of approximately 10 major and at least 15 minor proteins. The major proteins of the ODF include Odf1, Odf2, and Odf3, which compose a family of proteins that are preferentially expressed during mammalian spermiogenesis. The human Odf1 gene maps to chromosome 8q22.3. The human Odf2 gene maps to chromosome 9q34.11. Both Odf1 and Odf2 are exclusively expressed in testis. Odf2 interacts with Odf1 during assembly of the outer dense fibers by means of leucine zippers in both proteins. Odf1 can also self interact. The Odf proteins may be involved in male infertility as a result of flagellar dysfunction.

CHROMOSOMAL LOCATION

Genetic locus: ODF2 (human) mapping to 9q34.11; Odf2 (mouse) mapping to 2 B.

SOURCE

Odf2 (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Odf2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23135 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Odf2 (L-20) is recommended for detection of Odf2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Odf2 (L-20) is also recommended for detection of Odf2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Odf2 siRNA (h): sc-43410, Odf2 siRNA (m): sc-43411, Odf2 shRNA Plasmid (h): sc-43410-SH, Odf2 shRNA Plasmid (m): sc-43411-SH, Odf2 shRNA (h) Lentiviral Particles: sc-43410-V and Odf2 shRNA (m) Lentiviral Particles: sc-43411-V.

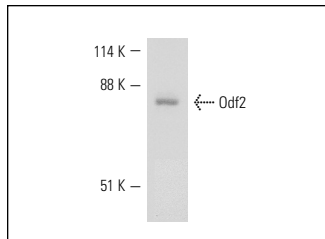
Molecular Weight of Odf2: 84 kDa.

Positive Controls: rat testis extract: sc-2400 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Odf2 (L-20): sc-23135. Western blot analysis of Odf2 expression in rat testis tissue extract.

SELECT PRODUCT CITATIONS

- Cooper, C.D., et al. 2011. Identification and characterization of peripheral T-cell lymphoma-associated SEREX antigens. *PLoS ONE* 6: e23916.
- Kasimanickam, V., et al. 2012. Association between mRNA abundance of functional sperm function proteins and fertility of Holstein bulls. *Theriogenology* 78: 2007.e2-2019.e2.
- Pimenta, M.T., et al. 2015. Relaxin affects cell organization and early and late stages of spermatogenesis in a coculture of rat testicular cells. *Andrology* 3: 772-786.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Odf2 (G-8): sc-365874** or **Odf2 (G-2): sc-393881**, our highly recommended monoclonal alternatives to Odf2 (L-20).