**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. 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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

Odf2 (G-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 3-27 at the N-terminus of Odf2 of human origin.

**PRODUCT**

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

Blocking peptide available for competition studies, sc-365874 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**APPLICATIONS**

Odf2 (G-8) is recommended for detection of Odf2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 (G-8) is also recommended for detection of Odf2 in additional species, including canine 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: NTERA-2 cl.D1 whole cell lysate: sc-364181, Jurkat whole cell lysate: sc-2204 or NIH/3T3 whole cell lysate: sc-2210.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

**STORAGE**

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

**RESEARCH USE**

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