

Zonadhesin (T-16): sc-51451

BACKGROUND

Zonadhesin, also known as ZAN, is a sperm-specific, transmembrane protein that binds the spermatozoa to the zona pellucida of the oocyte, thereby initiating acrosomal fusion. Expressed primarily in the testes and localized to the apical region of the sperm head, Zonadhesin is a 2,812 amino acid protein that mediates species-specific cell adhesion in the sperm head and is essential for proper fertilization. Zonadhesin contains three MAM (Meprin/A5 antigen/ μ receptor tyrosine phosphatase) domains and four VWF (von Willebrand factor) domains which mediate sperm adhesion and covalent oligomerization, respectively. Seven isoforms of Zonadhesin exist due to alternative splicing events. Four of the seven splice variants are expressed at low levels due to the presence of a premature mRNA stop codon that results in nonsense-mediated mRNA decay.

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CHROMOSOMAL LOCATION

Genetic locus: ZAN (human) mapping to 7q22.1; Zan (mouse) mapping to 5 G2.

SOURCE

Zonadhesin (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of Zonadhesin of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-51451 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Zonadhesin (T-16) is recommended for detection of Zonadhesin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for Zonadhesin siRNA (h): sc-106720, Zonadhesin siRNA (m): sc-155824, Zonadhesin shRNA Plasmid (h): sc-106720-SH, Zonadhesin shRNA Plasmid (m): sc-155824-SH, Zonadhesin shRNA (h) Lentiviral Particles: sc-106720-V and Zonadhesin shRNA (m) Lentiviral Particles: sc-155824-V.

Molecular Weight of human Zonadhesin: 306 kDa.

Molecular Weight of mouse Zonadhesin: 580 kDa.

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) 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.

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.

PROTOCOLS

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