

SPACA4 (L-14): sc-169397

BACKGROUND

SPACA4 (sperm acrosome membrane-associated protein 4), also known as SAMP14, is a 124 amino acid sperm surface membrane protein that may be involved in sperm-egg plasma membrane adhesion and fusion during fertilization. Containing one UPAR/Ly6 domain, SPACA4 is encoded by a gene that maps to human chromosome 19q13.33. Consisting of around 63 million bases with more than 1,400 genes, chromosome 19 makes up over 2% of the human genome. It is the genetic home for a number of immunoglobulin superfamily members including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG families, and Fc α receptors. Key genes for eye color and hair color also map to chromosome 19. Peutz-Jeghers syndrome, spinocerebellar ataxia type 6, the stroke disorder CADASIL, hypercholesterolemia and Insulin-dependent diabetes have been linked to chromosome 19. Translocations with chromosome 19 and chromosome 14 can be seen in some lymphoproliferative disorders and typically involve the proto-oncogene BCL3.

REFERENCES

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- Teglund, S., et al. 1994. The pregnancy-specific glycoprotein (PSG) gene cluster on human chromosome 19: fine structure of the 11 PSG genes and identification of 6 new genes forming a third subgroup within the carcinoembryonic antigen (CEA) family. *Genomics* 23: 669-684.
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- Trowsdale, J., et al. 2001. The genomic context of natural killer receptor extended gene families. *Immunol. Rev.* 181: 20-38.
- Shetty, J., et al. 2003. SAMP14, a novel, acrosomal membrane-associated, glycosylphosphatidylinositol-anchored member of the Ly-6/urokinase-type plasminogen activator receptor superfamily with a role in sperm-egg interaction. *J. Biol. Chem.* 278: 30506-30515.

CHROMOSOMAL LOCATION

Genetic locus: SPACA4 (human) mapping to 19q13.33; Spaca4 (mouse) mapping to 7 B4.

SOURCE

SPACA4 (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SPACA4 of mouse origin.

STORAGE

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

PROTOCOLS

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

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-169397 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SPACA4 (L-14) is recommended for detection of SPACA4 of mouse, rat and, to a lesser extent, 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); non cross-reactive with other SPACA family members.

Suitable for use as control antibody for SPACA4 siRNA (h): sc-97587, SPACA4 siRNA (m): sc-153697, SPACA4 shRNA Plasmid (h): sc-97587-SH, SPACA4 shRNA Plasmid (m): sc-153697-SH, SPACA4 shRNA (h) Lentiviral Particles: sc-97587-V and SPACA4 shRNA (m) Lentiviral Particles: sc-153697-V.

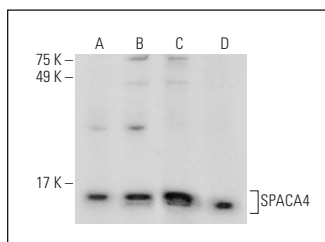
Molecular Weight of SPACA4: 13 kDa.

Positive Controls: mouse liver extract: sc-2256, mouse heart extract: sc-2254 or mouse spleen extract: sc-2391.

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.

DATA



SPACA4 (L-14): sc-169397. Western blot analysis of SPACA4 expression in mouse liver (A), mouse heart (B), human spleen (C) and mouse spleen (D) tissue extracts.

RESEARCH USE

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