

# calicin (S-13): sc-162627

## BACKGROUND

calicin (CCIN) is a 588 amino acid testis specific protein of the sperm head cytoskeleton. Found in the sperm head perinuclear theca, calicin localizes to the postacrosomal calyx and colocalizes with Actin in the acrosomal region of round spermatids. calicin's ability to form tetramers and higher polymers contributes to the rigid structure of the calyx. calicin may function as a morphogenetic cytoskeletal element during spermiogenic differentiation, and the absence or deformation of calicin may contribute to sperm malformations such as teratozoospermia. Containing one BACK (BTB/Kelch associated) domain, a BTB (POZ) domain and 6 Kelch repeats, calicin is encoded by a gene located on human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and Familial dysautonomia, are both associated with chromosome 9.

## REFERENCES

1. Longo, F.J., et al. 1987. Basic proteins of the perinuclear theca of mammalian spermatozoa and spermatids: a novel class of cytoskeletal elements. *J. Cell Biol.* 105: 1105-1120.
2. von Bülow, M., et al. 1995. Molecular nature of calicin, a major basic protein of the mammalian sperm head cytoskeleton. *Exp. Cell Res.* 219: 407-413.
3. Lécuyer, C., et al. 2000. Actin-binding properties and colocalization with Actin during spermiogenesis of mammalian sperm calicin. *Biol. Reprod.* 63: 1801-1810.
4. Burmeister, T., et al. 2007. Atypical Bcr-Abl mRNA transcripts in adult acute lymphoblastic leukemia. *Haematologica* 92: 1699-1702.
5. Cottin, V., et al. 2007. Pulmonary vascular manifestations of hereditary hemorrhagic telangiectasia (rendu-osler disease). *Respiration* 74: 361-378.
6. Axelrod, F.B., et al. 2009. Neuroimaging supports central pathology in familial dysautonomia. *J. Neurol.* 257: 198-206.
7. Gold-von Simson, G., et al. 2009. Kinetin in familial dysautonomia carriers: implications for a new therapeutic strategy targeting mRNA splicing. *Pediatr. Res.* 65: 341-346.
8. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 603960. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: CCIN (human) mapping to 9p13.3; Ccin (mouse) mapping to 4 B1.

## SOURCE

calicin (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of calicin of human origin.

## STORAGE

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

## 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-162627 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

calicin (S-13) is recommended for detection of calicin 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).

calicin (S-13) is also recommended for detection of calicin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for calicin siRNA (h): sc-92609, calicin siRNA (m): sc-141980, calicin shRNA Plasmid (h): sc-92609-SH, calicin shRNA Plasmid (m): sc-141980-SH, calicin shRNA (h) Lentiviral Particles: sc-92609-V and calicin shRNA (m) Lentiviral Particles: sc-141980-V.

Molecular Weight of calicin: 67 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.