CLAMP (G-3): sc-398342

BACKGROUND

CLAMP, also known as SPEF1 (sperm flagellar protein 1), is an 236 amino acid protein that is present in epididymal sperm and localizes to the cell projection, as well as to the cytoplasm. Expressed in lung, brain and testis, CLAMP functions as a microtubule-associated protein that is thought to play a role in microtubule bundling. Human CLAMP exists as two alternatively spliced isoforms and shares a high degree of homology with its mouse counterpart, suggesting a conserved role between species. The gene encoding CLAMP maps to human chromosome 20, which houses over 600 genes and comprises nearly 2% of the human genome.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: SPEF1 (human) mapping to 20p13; Spef1 (mouse) mapping to 3K–4K–xpr3xpr2xpr1 region of mouse chromosome 17. SPEF1 (human) mapping to 20p13; Spef1 (mouse) mapping to chromosome 4, bp13–17. SPEF1 (human) mapping to chromosome 20; Spef1 (mouse) mapping to chromosome 4.

SOURCE

CLAMP (G-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 3-19 at the N-terminus of CLAMP 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.

CLAMP (G-3) is available conjugated to agarose (sc-398342 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398342 HRP), 200 µg/ml for WB, HICP and ELISA; to either phycoerythrin (sc-398342 PE), fluorescein (sc-398342 FITC), Alexa Fluor® 488 (sc-398342 AF488), Alexa Fluor® 546 (sc-398342 AF546), Alexa Fluor® 594 (sc-398342 AF594) or Alexa Fluor® 647 (sc-398342 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398342 AF680) or Alexa Fluor® 790 (sc-398342 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398342 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

CLAMP (G-3) is recommended for detection of CLAMP 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).

Suitable for use as control antibody for CLAMP siRNA (h): sc-72914, CLAMP siRNA (m): sc-142360, CLAMP siRNA Plasmid (h): sc-72914-SH, CLAMP siRNA Plasmid (m): sc-142360-SH, CLAMP siRNA (h) Lentiviral Particles: sc-72914-V and CLAMP siRNA (m) Lentiviral Particles: sc-142360-V.

Molecular Weight (predicted) of CLAMP: 27 kDa.
Molecular Weight (observed) of CLAMP: 40-47 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG HRP: sc-516102 or m-IgG HRP: Cruz Marker: sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG HRP-FTC: sc-516140 or m-IgG HRP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-358850.

DATA

CLAMP (G-3) sc-398342. Western blot analysis of CLAMP expression in Hep G2 whole cell lysate (A), human testes (B), human brain (C), human liver (D) and mouse testis (E) tissue extracts.

STORAGE

Store at 4° C. **DO NOT FREEZE**. 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.