

# THEG (E-13): sc-169589

## BACKGROUND

THEG (testicular haploid expressed gene protein), also known as CT56 (cancer/testis antigen 56), is a 379 amino acid nuclear protein that contains 6 THEG repeats. THEG exists as two alternatively spliced isoforms and interacts with TCP-1  $\epsilon$ . Localizing to testis, THEG may be involved, but not essential, in spermatogenesis. The gene that encodes THEG contains just over 14,000 bases and maps to human chromosome 19p13.3. Consisting of around 63 million bases with more than 1,400 genes, chromosome 19 makes up over 2% of the human genome. Chromosome 19 includes a diversity of interesting genes and is recognized for having the greatest gene density of the human chromosomes. 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 $\alpha$  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.

## REFERENCES

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2. Mannan, A., Lücke, K., Dixkens, C., Neesen, J., Kämper, M., Engel, W. and Burfeind, P. 2000. Alternative splicing, chromosome assignment and sub-cellular localization of the testicular haploid expressed gene (THEG). *Cytogenet. Cell Genet.* 91: 171-179.
3. Yanaka, N., Kobayashi, K., Wakimoto, K., Yamada, E., Imahie, H., Imai, Y. and Mori, C. 2000. Insertional mutation of the murine kisimo locus caused a defect in spermatogenesis. *J. Biol. Chem.* 275: 14791-14794.
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## CHROMOSOMAL LOCATION

Genetic locus: THEG (human) mapping to 19p13.3; Theg (mouse) mapping to 10 C1.

## SOURCE

THEG (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of THEG of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-169589 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

THEG (E-13) is recommended for detection of THEG of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

THEG (E-13) is also recommended for detection of THEG in additional species, including bovine and porcine.

Suitable for use as control antibody for THEG siRNA (h): sc-97750, THEG siRNA (m): sc-154252, THEG shRNA Plasmid (h): sc-97750-SH, THEG shRNA Plasmid (m): sc-154252-SH, THEG shRNA (h) Lentiviral Particles: sc-97750-V and THEG shRNA (m) Lentiviral Particles: sc-154252-V.

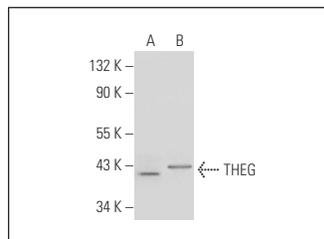
Molecular Weight of THEG isoforms: 43/41 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or Neuro-2A whole cell lysate: sc-364185.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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



THEG (E-13): sc-169589. Western blot analysis of THEG expression in Jurkat (A) and Neuro-2A (B) whole cell lysates.

## 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.