

# BOULE (H-89): sc-67371

## BACKGROUND

Spermatogenesis represents the intricate developmental process of mitotic and meiotic cell divisions that ultimately leads to the production of haploid spermatozoa. BOULE, a member of the human deleted in azoospermia (DAZ) family, functions as a key conserved switch that regulates the progression of germ cells through meiosis in man. BOULE is an RNA-binding protein that regulates the expression of *twine*, a Cdc25 phosphatase, which promotes progression through meiosis. BOULE is expressed not only in the testis but also in the nervous system, where it may play a role in neural communication. Mutations in the BOULE gene are associated with male infertility, and the relative proportions of the three BOULE isoforms (B1, B2 and B3) may function as predictive markers for meiotic efficiency.

## REFERENCES

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- Ezeh, U.I., et al. 2005. Human embryonic stem cell genes Oct-4, Nanog, STELLAR, and GDF-3 are expressed in both seminoma and breast carcinoma. *Cancer* 104: 2255-2265.
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- Westerveld, G.H., Repping, S., Leschot, N.J., van der Veen, F. and Lombardi, M.P. 2005. Mutations in the human BOULE gene are not a major cause of impaired spermatogenesis. *Fertil. Steril.* 83: 513-515.
- Tung, J.Y., et al. 2006. Evolutionary comparison of the reproductive genes, DAZL and BOULE, in primates with and without DAZ. *Dev. Genes Evol.* 216: 158-168.

## CHROMOSOMAL LOCATION

Genetic locus: BOLL (human) mapping to 2q33.1; Boll (mouse) mapping to 1 C1.2.

## SOURCE

BOULE (H-89) is a rabbit polyclonal antibody raised against amino acids 111-199 mapping within an internal region of BOULE of human origin.

## PRODUCT

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

## APPLICATIONS

BOULE (H-89) is recommended for detection of BOULE of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

BOULE (H-89) is also recommended for detection of BOULE in additional species, including canine, bovine, feline and porcine.

Suitable for use as control antibody for BOULE siRNA (h): sc-60280, BOULE siRNA (m): sc-60281, BOULE shRNA Plasmid (h): sc-60280-SH, BOULE shRNA Plasmid (m): sc-60281-SH, BOULE shRNA (h) Lentiviral Particles: sc-60280-V and BOULE shRNA (m) Lentiviral Particles: sc-60281-V.

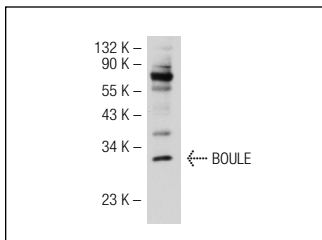
Molecular Weight of BOULE: 31 kDa.

Positive Controls: NTERA-2cl. D1 whole cell lysate: sc-364181, SW-13 cell lysate: sc-24778 or human liver extract: sc-363766.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



BOULE (H-89): sc-67371. Western blot analysis of BOULE expression in NTERA-2 cl. D1 whole cell lysate.

## 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.