

# Sgo2 (N-15): sc-161222

## BACKGROUND

Sgo2 (shugoshin-2), also known as SGOL2 (shugoshin-like 2), is a 1,265 amino acid protein that cooperates with PPP2CA to protect centromeric cohesin from separase-mediated cleavage in oocytes specifically during meiosis I. Sgo2 belongs to the shugoshin family, which is Japanese for guardian spirit. Sgo2 has a crucial role in protecting REC8 at centromeres from cleavage by separase. During meiosis, protects centromeric cohesin complexes until metaphase II/anaphase II transition, preventing premature release of meiosis-specific REC8 cohesin complexes from anaphase I centromeres. The Sgo2 protein is thus essential for an accurate gametogenesis. The Sgo2 protein is also essential for recruiting KIF2C to the inner centromere and for correcting defective kinetochore attachments. Existing as three alternatively spliced isoforms, the Sgo2 gene is conserved in cow, mouse and rat, and maps to human chromosome 2q33.1.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: SGOL2 (human) mapping to 2q33.1; Sgol2 (mouse) mapping to 1 C1.3.

## SOURCE

Sgo2 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Sgo2 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.

Blocking peptide available for competition studies, sc-161222 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Sgo2 (N-15) is recommended for detection of Sgo2 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); non cross-reactive with Sgo1.

Sgo2 (N-15) is also recommended for detection of Sgo2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Sgo2 siRNA (h): sc-94683, Sgo2 siRNA (m): sc-153423, Sgo2 shRNA Plasmid (h): sc-94683-SH, Sgo2 shRNA Plasmid (m): sc-153423-SH, Sgo2 shRNA (h) Lentiviral Particles: sc-94683-V and Sgo2 shRNA (m) Lentiviral Particles: sc-153423-V.

Molecular Weight of Sgo2 isoforms1/2/3: 145/144/28 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™ 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.

## 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.

## PROTOCOLS

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