

# GTSE-1 (N-12): sc-86483

## BACKGROUND

GTSE-1 (G<sub>2</sub> and S-phase expressed 1) is also known as B99 homolog and is a 720 amino acid protein. GTSE-1 is localized to the cytoplasm where it colocalizes with cytoplasmic Tubulin and microtubules during the S and G<sub>2</sub> phases of the cell cycle. Upregulation of GTSE-1 leads to a delay in the transition from the G<sub>2</sub> phase to the M phase, during which GTSE-1 is phosphorylated and subsequently reduced in the G<sub>1</sub> phase. GTSE-1 can shuttle between the cytoplasm and the nucleus, unless hindered by Leptomycin B which prevents its nuclear export, causing GTSE-1 accumulation in the nucleus. In the case of DNA damage, GTSE-1 accumulates in the nucleus and binds to the tumor suppressor protein DSCP1, an event that results in the transport of DSCP1 to the cytoplasm and regulates DSCP1 stability and function during the cell cycle. DSCP1 is subsequently degraded by the ubiquitin-proteasome pathway in the cytoplasm.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: GTSE1 (human) mapping to 22q13.31; Gtse1 (mouse) mapping to 15 E2.

## SOURCE

GTSE-1 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of GTSE-1 of human origin.

## RESEARCH USE

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

## 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-86483 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GTSE-1 (N-12) is recommended for detection of GTSE-1 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).

GTSE-1 (N-12) is also recommended for detection of GTSE-1 in additional species, including equine and bovine.

Suitable for use as control antibody for GTSE-1 siRNA (h): sc-75216, GTSE-1 siRNA (m): sc-145835, GTSE-1 shRNA Plasmid (h): sc-75216-SH, GTSE-1 shRNA Plasmid (m): sc-145835-SH, GTSE-1 shRNA (h) Lentiviral Particles: sc-75216-V and GTSE-1 shRNA (m) Lentiviral Particles: sc-145835-V.

Molecular Weight of GTSE-1: 77 kDa.

Positive Controls: AML-193 whole cell lysate: sc-364182.

## 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.

## PROTOCOLS

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