

# SESN2 (H-62): sc-292558

## BACKGROUND

SESN2, also known as sestrin 2, HI95, SES2 or SEST2, is a 480 amino acid protein that belongs to the sestrin family of PA26-related proteins. Expressed in a variety of tissues throughout the body, SESN2 is thought to be involved in the regulation of cell growth and survival and may play a role in mediating stress-induced cellular responses. SESN2 expression is upregulated following oxidative stress or DNA damage. This leads to cell toxicity and subsequent apoptosis, implying an essential role for SESN2 in the regulation of cell viability. Conversely, overexpression of SESN2 in breast cancer cells leads to protection from apoptosis, suggesting a possible role for SESN2 in tumor progression. SESN2 is, therefore, a crucial regulator of cell survival whose function varies depending on cellular conditions.

## REFERENCES

1. Budanov, A.V., et al. 2002. Identification of a novel stress-responsive gene Hi95 involved in regulation of cell viability. *Oncogene* 21: 6017-6031.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607767. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: SESN2 (human) mapping to 1p35.3; *Sesn2* (mouse) mapping to 4 D2.3.

## SOURCE

SESN2 (H-62) is a rabbit polyclonal antibody raised against amino acids 45-106 mapping near the N-terminus of SESN2 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

SESN2 (H-62) is recommended for detection of SESN2 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).

SESN2 (H-62) is also recommended for detection of SESN2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SESN2 siRNA (h): sc-106544, SESN2 siRNA (m): sc-153380, SESN2 shRNA Plasmid (h): sc-106544-SH, SESN2 shRNA Plasmid (m): sc-153380-SH, SESN2 shRNA (h) Lentiviral Particles: sc-106544-V and SESN2 shRNA (m) Lentiviral Particles: sc-153380-V.

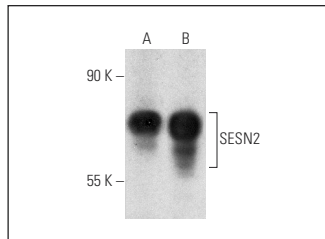
Molecular Weight of SESN2: 60 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or U-87 MG cell lysate: sc-2411.

## 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



SESN2 (H-62): sc-292558. Western blot analysis of SESN2 expression in K-562 (A) and U-87 MG (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.

## PROTOCOLS

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

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Try **SESN2 (D-4): sc-393195** or **SESN2 (F-1): sc-514058**, our highly recommended monoclonal alternatives to SESN2 (H-62).