# Gas2L3 (C-16): sc-137491



The Power to Question

## **BACKGROUND**

Gas2, a 313 amino acid protein, is ubiquitously expressed with highest levels found in liver, lung and kidney, and is thought to play a role in apoptosis by acting as a cell death substrate for caspases. One of several components of the microfilament system, Gas2 is cleaved by either caspase-3 or caspase-7 at Asp 278 during apoptosis, an event which induces the rearrangement of the Actin cytoskeleton and causes potent changes in the shape of the affected cell. Gas2L3 (growth arrest-specific 2 like 3) is a 694 amino acid protein that contains one calponin-homology (CH) domain and may function in a similar manner to Gas2. The gene encoding Gas2L3 maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome.

## **REFERENCES**

- Fleming, J.V., et al. 1998. Effects of nutrient deprivation and differentiation on the expression of growth-arrest genes (gas and gadd) in F9 embryonal carcinoma cells. Biochem. J. 330: 573-579
- 2. Collavin, L., et al. 1998. cDNA characterization and chromosome mapping of the human GAS2 gene. Genomics 48: 265-269.
- Sgorbissa, A., et al. 2000. Caspase-3 and caspase-7 but not caspase-6 cleave Gas2 in vitro: implications for microfilament reorganization during apoptosis. J. Cell Sci. 112: 4475-4482
- 4. Benetti, R., et al. 2001. The death substrate Gas2 binds  $\mu$ -calpain and increases susceptibility to p53-dependent apoptosis. EMB0 J. 20: 2702-2714.
- Goriounov, D., et al. 2003. Protein products of human Gas2-related genes on chromosomes 17 and 22 (hGAR17 and hGAR22) associate with both microfilaments and microtubules. J. Cell Sci. 116: 1045-1058.
- 6. Brockman, J.L., et al. 2005. Prolactin signals via Stat5 and Oct-1 to the proximal cyclin D1 promoter. Mol. Cell. Endocrinol. 239: 45-53.
- 7. Ragni, E., et al. 2007. The Gas family of proteins of *Saccharomyces cere-visiae*: characterization and evolutionary analysis. Yeast 24: 297-308.
- 8. Ragni, E., et al. 2007. GAS2 and GAS4, a pair of developmentally regulated genes required for spore wall assembly in *Saccharomyces cerevisiae*. Eukaryotic Cell 6: 302-316.
- 9. Seidl, C., et al. 2009. Differential gene expression triggered by highly cytotoxic  $\alpha$ -Emitter-immunoconjugates in gastric cancer cells. Invest. New Drugs 28: 49-60.

## **CHROMOSOMAL LOCATION**

Genetic locus: GAS2L3 (human) mapping to 12q23.1.

# SOURCE

Gas2L3 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Gas2L3 of human origin.

#### **STORAGE**

Store at  $4^{\circ}$  C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### **PRODUCT**

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

Blocking peptide available for competition studies, sc-137491 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

Gas2L3 (C-16) is recommended for detection of Gas2L3 of 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 other Gas family members.

Suitable for use as control antibody for Gas2L3 siRNA (h): sc-95923, Gas2L3 shRNA Plasmid (h): sc-95923-SH and Gas2L3 shRNA (h) Lentiviral Particles: sc-95923-V.

Molecular Weight of Gas2L3: 75 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) with UltraCruz™ Mounting Medium: sc-24941.

# **RESEARCH USE**

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

### **PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com