SANTA CRUZ BIOTECHNOLOGY, INC.

Gas2L3 (K-18): sc-137492

SANTA CRUZ BIOTECHNOLOGY

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

1. 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.
3. 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 m-calpain and increases susceptibility to p53-dependent apoptosis. EMBO J. 20: 2702-2714.
5. 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.

CHROMOSOMAL LOCATION

Genetic locus: GAS2L3 (human) mapping to 12q23.1; Gas2l3 (mouse) mapping to 10 C2.

SOURCE

Gas2L3 (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Gas2L3 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-137492 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

Gas2L3 (K-18) is recommended for detection of Gas2L3 of human and, to a lesser extent, mouse and rat 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); non cross-reactive with other Gas family members.

Gas2L3 (K-18) is also recommended for detection of Gas2L3 in additional species, including equine and bovine.

Suitable for use as control antibody for Gas2L3 siRNA (h): sc-95923, Gas2L3 siRNA (m): sc-145333, Gas2L3 shRNA Plasmid (h): sc-95923-SH, Gas2L3 shRNA Plasmid (m): sc-145333-SH, Gas2L3 shRNA (h) Lentiviral Particles: sc-95923-V and Gas2L3 shRNA (m) Lentiviral Particles: sc-145333-V.

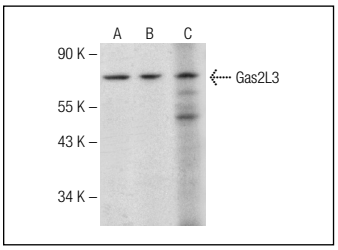
Molecular Weight of Gas2L3: 75 kDa.

Positive Controls: U-2 OS cell lysate: sc-2295 or MCF7 whole cell lysate: sc-2206.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Gas2L3 (K-18): sc-137492. Western blot analysis of Gas2L3 expression in MCF7 (**A**) and U-2 OS (**B**) whole cell lysates and mouse brain tissue extract (**C**).

PROTOCOLS

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