

gasdermin (C-20): sc-79952

BACKGROUND

gasdermin, also known as GSDMA, GSDM or FKSG9, is a 445 amino acid protein that localizes to the perinuclear region of the cytoplasm and belongs to the gasdermin family. Expressed predominately in tissues of the gastrointestinal tract and also present in skin and mammary gland, gasdermin functions to induce apoptosis and is thought to possess tumor suppression activity, specifically in gastric cancer cells. The gene encoding gasdermin maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Tumor suppressor p53 is necessary for maintenance of cellular genetic integrity by moderating cell fate through DNA repair versus cell death. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of the ovary, colon, prostate gland and fallopian tubes.

REFERENCES

1. Saeki, N., et al. 2000. Gasdermin (Gsdm) localizing to mouse Chromosome 11 is predominantly expressed in upper gastrointestinal tract but significantly suppressed in human gastric cancer cells. *Mamm. Genome* 11: 718-724.
2. Katoh, M. and Katoh, M. 2004. Evolutionary recombination hotspot around GSDML-GSDM locus is closely linked to the oncogenomic recombination hotspot around the PPP1R1B-ERBB2-GRB7 amplicon. *Int. J. Oncol.* 24: 757-763.
3. Tamura, M., et al. 2007. Members of a novel gene family, Gsdm, are expressed exclusively in the epithelium of the skin and gastrointestinal tract in a highly tissue-specific manner. *Genomics* 89: 618-629.
4. Saeki, N., et al. 2007. Gasdermin, suppressed frequently in gastric cancer, is a target of LMO1 in TGF- β -dependent apoptotic signalling. *Oncogene* 26: 6488-6498.
5. Online Mendelian Inheritance in Man, OMIM[™]. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 611218. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Saeki, N., et al. 2009. Distinctive expression and function of four GSDM family genes (GSDMA-D) in normal and malignant upper gastrointestinal epithelium. *Genes Chromosomes Cancer* 48: 261-271.

CHROMOSOMAL LOCATION

Genetic locus: GSDMA (human) mapping to 17q21.1; Gsdma1 (mouse) mapping to 11 D.

SOURCE

gasdermin (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of gasdermin of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79952 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

gasdermin (C-20) is recommended for detection of gasdermin 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).

gasdermin (C-20) is also recommended for detection of gasdermin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for gasdermin siRNA (h): sc-75109, gasdermin siRNA (m): sc-75110, gasdermin shRNA Plasmid (h): sc-75109-SH, gasdermin shRNA Plasmid (m): sc-75110-SH, gasdermin shRNA (h) Lentiviral Particles: sc-75109-V and gasdermin shRNA (m) Lentiviral Particles: sc-75110-V.

Molecular Weight of gasdermin: 49 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.

SELECT PRODUCT CITATIONS

1. Goel, M., et al. 2011. Cochlin induced TREK-1 co-expression and annexin A2 secretion: role in trabecular meshwork cell elongation and motility. *PLoS ONE* 6: e23070.

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.



Try **gasdermin (H-6): sc-376318**, our highly recommended monoclonal alternative to gasdermin (C-20).