

gasdermin (m): 293 Lysate: sc-178656

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: Gsdma1 (mouse) mapping to 11 D.

PRODUCT

gasdermin (m): 293 Lysate represents a lysate of mouse gasdermin transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

gasdermin (m): 293 Lysate is suitable as a Western Blotting positive control for mouse reactive gasdermin antibodies. Recommended use: 10-20 μ l per lane.

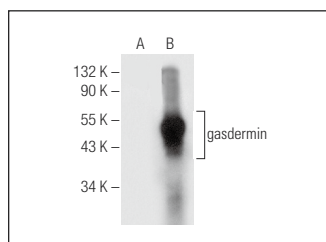
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

gasdermin (H-6): sc-376318 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse gasdermin expression in gasdermin transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



gasdermin (H-6): sc-376318. Western blot analysis of gasdermin expression in non-transfected: sc-110760 (A) and mouse gasdermin transfected: sc-178656 (B) 293 whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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