

GSDMDC1 (64-Y): sc-81868

BACKGROUND

The gene encoding the 484 amino acid protein GSDMDC1 maps to human chromosome 8q24.3, which is made up of nearly 146 million bases and encodes about 800 genes. Translocation of portions of chromosome 8 with amplifications of the c-Myc gene are found in some leukemias and lymphomas, and typically associated with a poor prognosis. Portions of chromosome 8 have been linked to schizophrenia and bipolar disorder. Trisomy 8, also known as Warkany syndrome 2, most often results in early miscarriage but is occasionally seen in a mosaic form in surviving patients who suffer to a varying degree from a number of symptoms including retarded mental and motor development, and certain facial and developmental defects. WRN is a DNA helicase encoded by chromosome 8 and shown defective in those with the early aging disorder Werner syndrome. Chromosome 8 is also associated with Pfeiffer syndrome, congenital hypothyroidism and Waardenburg syndrome.

REFERENCES

1. Wildenauer, D.B. and Schwab, S.G. 1999. Chromosomes 8 and 10 workshop. *Am. J. Med. Genet.* 88: 239-243.
2. Kashino, G., et al. 2001. Preferential expression of an intact WRN gene in Werner syndrome cell lines in which a normal chromosome 8 has been introduced. *Biochem. Biophys. Res. Commun.* 289: 111-115.
3. Selicorni, A., et al. 2002. Cytogenetic mapping of a novel locus for type II Waardenburg syndrome. *Hum. Genet.* 110: 64-67.

CHROMOSOMAL LOCATION

Genetic locus: GSDMD (human) mapping to 8q24.3.

SOURCE

GSDMDC1 (64-Y) is a mouse monoclonal antibody raised against recombinant GSDMDC1 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

GSDMDC1 (64-Y) is recommended for detection of GSDMDC1 of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GSDMDC1 siRNA (h): sc-77581, GSDMDC1 shRNA Plasmid (h): sc-77581-SH and GSDMDC1 shRNA (h) Lentiviral Particles: sc-77581-V.

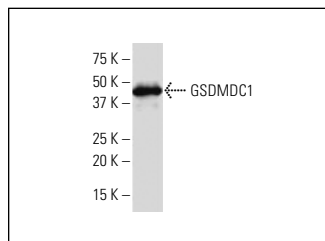
Molecular Weight of GSDMDC1: 53 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or JAR cell lysate: sc-2276.

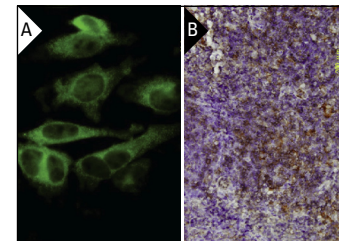
STORAGE

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

DATA



GSDMDC1 (64-Y): sc-81868. Western blot analysis of GSDMDC1 expression in Jurkat whole cell lysate.



GSDMDC1 (64-Y): sc-81868. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human tonsil tissue showing cytoplasmic localization (B).

SELECT PRODUCT CITATIONS

1. Shi, J., et al. 2015. Cleavage of GSDMD by inflammatory caspases determines pyroptotic cell death. *Nature* 526: 660-665.
2. Gutierrez, K.D., et al. 2017. MLKL activation triggers NLRP3-mediated processing and release of IL-1β independently of Gasdermin-D. *J. Immunol.* 198: 2156-2164.
3. Gao, J., et al. 2018. Downregulation of GSDMD attenuates tumor proliferation via the intrinsic mitochondrial apoptotic pathway and inhibition of EGFR/Akt signaling and predicts a good prognosis in non-small cell lung cancer. *Oncol. Rep.* 40: 1971-1984.
4. Botto, S., et al. 2019. Human cytomegalovirus immediate early 86-kDa protein blocks transcription and induces degradation of the immature interleukin-1β protein during virion-mediated activation of the AIM2 inflammasome. *MBio* 10 pii: e02510-e02518.
5. Davis, M.A., et al. 2019. Calpain drives pyroptotic vimentin cleavage, intermediate filament loss, and cell rupture that mediates immunostimulation. *Proc. Natl. Acad. Sci. USA* 116: 5061-5070.
6. Xi, G., et al. 2019. GSDMD is required for effector CD8⁺ T cell responses to lung cancer cells. *Int. Immunopharmacol.* 74: 105713.
7. Wu, X.Y., et al. 2019. Complement C1q synergizes with PTX3 in promoting NLRP3 inflammasome over-activation and pyroptosis in rheumatoid arthritis. *J. Autoimmun.* 7: 102336.
8. Xue, Z., et al. 2019. miR-21 promotes NLRP3 inflammasome activation to mediate pyroptosis and endotoxic shock. *Cell Death Dis.* 10: 461.
9. Goddard, P.J., et al. 2019. Enteropathogenic *Escherichia coli* stimulates effector-driven rapid caspase-4 activation in human macrophages. *Cell Rep.* 27: 1008-1017.

RESEARCH USE

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