SANTA CRUZ BIOTECHNOLOGY, INC.

Pyrin (P-20): sc-30422

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The Power to Question

BACKGROUND

Pyrin, also designated Marenostrin or Mediterranean fever protein, controls the inflammatory response in myelomonocytic cells in cytoskeletal organization. Defects in the gene coding for Pyrin may cause Mediterranean fever, a hereditary autosomal recessive disorder characterized by recurrent fever, serosal inflammation and pain in the chest or abdomen. Pyrin is expressed in peripheral blood leucocytes (particularly in mature granulocytes) but not in lymphocytes. It can also be detected in spleen, muscle, lung and in several myeloid leukemic, colon cancer, and prostate cancer cell lines.

REFERENCES

1. SWISS-PROT/TrEMBL (O15553). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html
2. Dode, C. et al. 2000. Mutations in the MEFV gene in a large series of patients with a clinical diagnosis of familial Mediterranean fever. Am. J. Med. Genet. 92: 241-246.
3. Papin, S. et al. 2000. Alternative splicing at the MEFV locus involved in familial Mediterranean fever regulates translocation of the marenostrin/pyrin protein to the nucleus. Hum. Mol. Genet. 9: 3001-3009.
4. Centola, M. et al. 2000. The gene for familial Mediterranean fever, MEFV, is expressed in early leukocyte development and is regulated in response to inflammatory mediators. Blood 95: 3223-3231.
5. Aglipay, J.A., et al. 2003. A member of the Pyrin family, IFI16, is a novel BRCA1-associated protein involved in the p53-mediated apoptosis pathway. Oncogene 22: 8931-8938.
6. Shoham, N.G., et al. 2003. Pyrin binds the PSTPIP1/CD2BP1 protein, defining familial Mediterranean fever and PAPA syndrome as disorders in the same pathway. Proc. Natl. Acad. Sci. USA 100: 13501-13506.
7. Kubo, T., et al. 2004. Apoptotic speck protein-like, a highly homologous protein to apoptotic speck protein in the pyrin domain, is silenced by DNA methylation and induces apoptosis in human hepatocellular carcinoma. Cancer Res. 64: 5172-5177.
8. Moriya, M., et al. 2005. Role of charged and hydrophobic residues in the oligomerization of the PYRIN domain of ASC. Biochemistry 44: 575-583.

CHROMOSOMAL LOCATION

Genetic locus: MEFV (human) mapping to 16p13.3.

SOURCE

Pyrin (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Pyrin 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-30422 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Pyrin (P-20) is recommended for detection of Pyrin 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).

Suitable for use as control antibody for Pyrin siRNA (h): sc-106466, Pyrin shRNA Plasmid (h): sc-106466-SH and Pyrin shRNA (h) Lentiviral Particles: sc-106466-V.

Molecular Weight of Pyrin: 86 kDa.

Positive Controls: Caco-2 cell lysate: sc-2262, WIDR cell lysate: sc-24779 or COLO 320DM cell lysate: sc-2226.

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.

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.

PROTOCOLS

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