SANTA CRUZ BIOTECHNOLOGY, INC.

Cryopyrin (6F12): sc-134306

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cryopyrin interacts selectively with apoptosis-associated specklike protein containing a CARD domain (ASC). This complex may function as an upstream activator of NFκB signaling and caspase-1 activation. The complex also inhibits TNFα induced activation and nuclear translocation of RelA/NFκB p65. Mutations in Cryopyrin and Pyrin proteins are responsible for several autoinflammatory disorders in humans, including familial cold autoinflammatory syndrome (FCAS), Muckle-Wells syndrome (MWS) and chronic infantile neurologic cutaneous and articular syndrome (CINCA).

REFERENCES

1. Dode, C., et al. 2002. New mutations of CIAS1 that are responsible for Muckle-Wells syndrome and familial cold urticaria: a novel mutation underlies both syndromes. Am. J. Hum. Genet. 70: 1498-1506.
2. Feldmann, J., et al. 2002. Chronic infantile neurological cutaneous and articular syndrome is caused by mutations in CIAS1, a gene highly expressed in polymorphonuclear cells and chondrocytes. Am. J. Hum. Genet. 71: 198-203.

CHROMOSOMAL LOCATION

Genetic locus: NLRP3 (human) mapping to 1q44.

SOURCE

Cryopyrin (6F12) is a mouse monoclonal antibody raised against a recombinant protein corresponding to a region near the N-terminus of Cryopyrin of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Cryopyrin (6F12) is recommended for detection of Cryopyrin 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Cryopyrin siRNA (h): sc-45469, Cryopyrin shRNA Plasmid (h): sc-45469-SH and Cryopyrin shRNA (h) Lentiviral Particles: sc-45469-V.

Molecular Weight of Cryopyrin: 106 kDa.

Positive Controls: human Cryopyrin transfected 293T whole cell lysate.

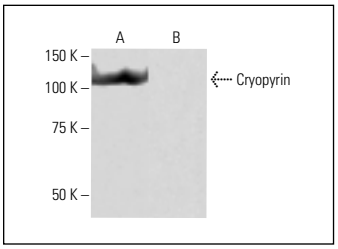
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

STORAGE

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

DATA



Cryopyrin (6F12): sc-134306. Western blot analysis of Cryopyrin expression in human Cryopyrin transfected (**A**) and non-transfected (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Nagamatsu, K., et al. 2015. Dysregulation of *Escherichia coli* α-hemolysin expression alters the course of acute and persistent urinary tract infection. Proc. Natl. Acad. Sci. USA 112: E871-E880.
2. Zeng, J., et al. 2017. Isoliquiritigenin alleviates early brain injury after experimental intracerebral hemorrhage via suppressing Ros- and/or NFκB-mediated NLRP3 inflammasome activation by promoting Nrf2 antioxidant pathway. J. Neuroinflammation 14: 119.
3. Park, M.H., et al. 2019. Mono-(2-ethylhexyl) phthalate aggravates inflammatory response via sirtuin regulation and inflammasome activation in RAW 264.7 cells. Chem. Res. Toxicol. 32: 935-942.
4. Li, H., et al. 2020. C-terminal binding proteins 1 and 2 in traumatic brain injury-induced inflammation and their inhibition as an approach for anti-inflammatory treatment. Int. J. Biol. Sci. 16: 1107-1120.
5. Zhang, Y.Z., et al. 2020. Association between Nod-like receptor protein 3 inflammasome and gouty nephropathy. Exp. Ther. Med. 20: 195-204.
6. Le, X., et al. 2020. DNA methylation downregulated ZDHHC1 suppresses tumor growth by altering cellular metabolism and inducing oxidative/ER stress-mediated apoptosis and pyroptosis. Theranostics 10: 9495-9511.
7. Logan, S.M. and Storey, K.B. 2021. Inflammasome signaling could be used to sense and respond to endogenous damage in brown but not white adipose tissue of a hibernating ground squirrel. Dev. Comp. Immunol. 114: 103819.
8. Zhao, H., et al. 2021. Propofol ameliorates endotoxin-induced myocardial cell injury by inhibiting inflammation and apoptosis via the PPARγ/HMGB1/NLRP3 axis. Mol. Med. Rep. 23: 176.
9. Antonuccio, P., et al. 2021. The nutraceutical N-palmitoylethanolamide (PEA) reveals widespread molecular effects unmasking new therapeutic targets in murine varicocele. Nutrients 13: 734.

RESEARCH USE

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