SANTA CRUZ BIOTECHNOLOGY, INC.

Cryopyrin (H-8): sc-518123

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. 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. 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 (H-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 200-221 of Cryopyrin of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Cryopyrin (H-8) is available conjugated to agarose (sc-518123 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-518123 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518123 PE), fluorescein (sc-518123 FITC), Alexa Fluor® 488 (sc-518123 AF488), Alexa Fluor® 546 (sc-518123 AF546), Alexa Fluor® 594 (sc-518123 AF594) or Alexa Fluor® 647 (sc-518123 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518123 AF680) or Alexa Fluor® 790 (sc-518123 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Cryopyrin (H-8) is recommended for detection of Cryopyrin of human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

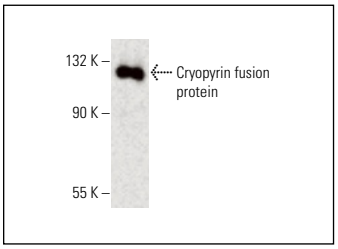
Suitable for use as control antibody for Cryopyrin siRNA (h): sc-45469, Cryopyrin shRNA Plasmid (h): sc-45469-SH and Cryopyrin shRNA (h) Lentiviral Particles: sc-45469-V.

Molecular Weight of Cryopyrin: 106 kDa.

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Cryopyrin (H-8): sc-518123. Western blot analysis of human recombinant Cryopyrin fusion protein. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

SELECT PRODUCT CITATIONS

1. Yu, J.T., et al. 2021. DNA methylation of FTO promotes renal inflammation by enhancing m^6A of PPAR-α in alcohol-induced kidney injury. Pharmacol. Res. 163: 105286.
2. Yu, C., et al. 2021. Betulin alleviates myocardial ischemia-reperfusion injury in rats via regulating the Siti1/NLRP3/NFκB signaling pathway. Inflammation 44: 1096-1107.
3. Li, C., et al. 2023. Increased mitochondrial fission induces NLRP3/cGAS-STING mediated pro-inflammatory pathways and apoptosis in UVB-irradiated immortalized human keratinocyte HaCaT cells. Arch. Biochem. Biophys. 738: 109558.
4. Zhao, Z., et al. 2024. Knockdown of DAPK1 inhibits IL-1β-induced inflammation and cartilage degradation in human chondrocytes by modulating the PEDF-mediated NFκB and NLRP3 inflammasome pathway. Innate Immun. 30: 21-30.
5. Hung, T.W., et al. 2024. Renoprotective effect of rosmarinic acid by inhibition of indoxyl sulfate-induced renal interstitial fibrosis via the NLRP3 inflammasome signaling. Int. Immunopharmacol. 135: 112314.

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.