

Cryopyrin (F-11): sc-518122

BACKGROUND

Cryopyrin interacts selectively with apoptosis-associated specklike protein containing a CARD domain (ASC). This complex may function as an upstream activator of NF κ B signaling and caspase-1 activation. The complex also inhibits TNF α induced activation and nuclear translocation of RelA/NF κ B 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.
3. Rosengren, S. 2005. Expression and regulation of cryopyrin and related proteins in rheumatoid arthritis synovium. *Ann. Rheum. Dis.* 64: 708-714.
4. Bihl, T. 2005. The T348M mutated form of cryopyrin is associated with defective lipopolysaccharide-induced interleukin 10 production in CINCA syndrome. *Ann. Rheum. Dis.* 64: 1380-1381.
5. Yu, J.W. 2005. Cryopyrin and Pyrin activate caspase-1, but not NF κ B, via ASC oligomerization. *Cell Death Differ.* 13: 236-249.

CHROMOSOMAL LOCATION

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

SOURCE

Cryopyrin (F-11) 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 μ g IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Cryopyrin (F-11) 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 μ g per 100-500 μ g 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.

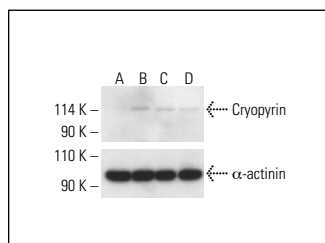
Molecular Weight of Cryopyrin: 106 kDa.

Positive Controls: A549 cell lysate: sc-2413.

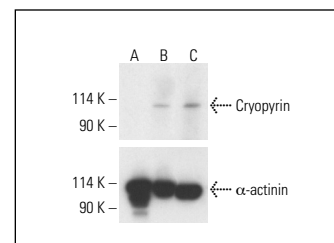
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ 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 (F-11): sc-518122. Western blot analysis of Cryopyrin expression in untreated (A) and chemically-treated (B, C, D) HCT-116 whole cell lysates. Detection reagent used: m-IgG κ BP-HRP: sc-516102. α -actinin (H-2): sc-17829 used as loading control. Detection reagent used: m-IgG κ BP-HRP: sc-525408.



Cryopyrin (F-11): sc-518122. Western blot analysis of Cryopyrin expression in untreated (A) and chemically-treated (B, C) A549 whole cell lysates. Detection reagent used: m-IgG κ BP-HRP: sc-516102. α -actinin (H-2): sc-17829 used as loading control. Detection reagent used: m-IgG κ BP-HRP: sc-525408.

SELECT PRODUCT CITATIONS

1. Liu, K., et al. 2022. PINK1/Parkin-mediated mitophagy alleviates *Staphylococcus aureus*-induced NLRP3 inflammasome and NF κ B pathway activation in bovine mammary epithelial cells. *Int. Immunopharmacol.* 112: 109200.

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 for detailed protocols and support products.