

Cryopyrin (M-12): sc-34410

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 Pypin proteins are responsible for several autoinflammatory disorders in humans, including familial cold autoinflammatory syndrome (FCAS), Muckle-Wells syndrome (MWS), and chronic infantile neurological cutaneous and articular syndrome (CINCA).

REFERENCES

1. Dodé, 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.
3. Rosengren, S., et al. 2005. Expression and regulation of cryopyrin and related proteins in rheumatoid arthritis synovium. *Ann. Rheum. Dis.* 64: 708-714.
4. Bihl, T., et al. 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., et al. 2005. Cryopyrin and pypin 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; Nlrp3 (mouse) mapping to 11 B1.3.

SOURCE

Cryopyrin (M-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Cryopyrin of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-515648 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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.

APPLICATIONS

Cryopyrin (M-12) is recommended for detection of Cryopyrin of mouse, rat and 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).

Cryopyrin (M-12) is also recommended for detection of Cryopyrin in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for Cryopyrin siRNA (h): sc-45469, Cryopyrin siRNA (m): sc-45470, Cryopyrin shRNA Plasmid (h): sc-45469-SH, Cryopyrin shRNA Plasmid (m): sc-45470-SH, Cryopyrin shRNA (h) Lentiviral Particles: sc-45469-V and Cryopyrin shRNA (m) Lentiviral Particles: sc-45470-V.

Molecular Weight of Cryopyrin: 106 kDa.

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.

SELECT PRODUCT CITATIONS

1. Meng, G., et al. 2009. A mutation in the Nlrp3 gene causing inflammasome hyperactivation potentiates Th17 cell-dominant immune responses. *Immunity* 30: 860-874.
2. Wang, W., et al. 2013. Quercetin and allopurinol reduce liver thioredoxin-interacting protein to alleviate inflammation and lipid accumulation in diabetic rats. *Br. J. Pharmacol.* 169: 1352-1371.
3. Wang, L., et al. 2014. Metabolic inflammation exacerbates dopaminergic neuronal degeneration in response to acute MPTP challenge in type 2 diabetes mice. *Exp. Neurol.* 251: 22-29.
4. Du, R.H., et al. 2014. Kir6.2 knockout aggravates lipopolysaccharide-induced mouse liver injury via enhancing NLRP3 inflammasome activation. *J. Gastroenterol.* 49: 727-736.
5. Lu, M., et al. 2014. Uncoupling protein 2 deficiency aggravates astrocytic endoplasmic reticulum stress and nod-like receptor protein 3 inflammasome activation. *Neurobiol. Aging* 35: 421-430.



Try **Cryopyrin (6F12): sc-134306**, our highly recommended monoclonal alternative to Cryopyrin (M-12).