ASC2 (FL-89): sc-98694



The Power to Question

BACKGROUND

The death domain (DD) superfamily of proteins share one or more of the following domains: the DD, DED (death-effector domain), CARD (caspase-recruitment domain) and PYD (Pyrin domain). Each of these domains is characterized by a canonical death domain fold, which consists of a bundle of five or six antiparallel α -helices. As their names suggest, these domains play prominent roles in programmed cell death. ASC2 (apoptosis-associated speck-like protein containing a CARD 2), also known as Pyrin-only protein 1 or PADD-only protein 1, is an 89 amino acid member of the DD superfamily that contains one Pyrin domain. Localized to the cytoplasm, ASC2 interacts with ASC to modulate NFkB and pro-caspase-1 regulation. ASC2 is predominantly expressed in monocytes, macrophages and granulocytes.

REFERENCES

- Martinon, F., Hofmann, K. and Tschopp, J. 2001. The pyrin domain: a possible member of the death domain-fold family implicated in apoptosis and inflammation. Curr. Biol. 11: R118-R120.
- Fairbrother, W.J., Gordon, N.C., Humke, E.W., O'Rourke, K.M., Starovasnik, M.A., Yin, J.P. and Dixit, V.M. 2001. The PYRIN domain: a member of the death domain-fold superfamily. Protein Sci. 10: 1911-1918.
- Staub, E., Dahl, E. and Rosenthal, A. 2001. The DAPIN family: a novel domain links apoptotic and interferon response proteins. Trends Biochem. Sci. 26: 83-85.
- Pawłowski, K., Pio, F., Chu, Z., Reed, J.C. and Godzik, A. 2001. PAAD-a new protein domain associated with apoptosis, cancer and autoimmune diseases. Trends Biochem. Sci. 26: 85-87.
- Stehlik, C., Krajewska, M., Welsh, K., Krajewski, S., Godzik, A. and Reed, J.C. 2003. The PAAD/PYRIN-only protein POP1/ASC2 is a modulator of ASC-mediated nuclear-factor-κ B and pro-caspase-1 regulation. Biochem. J. 373: 101-113.
- 6. Liepinsh, E., Barbals, R., Dahl, E., Sharipo, A., Staub, E. and Otting, G. 2003. The death-domain fold of the ASC Pyrin domain, presenting a basis for Pyrin/Pyrin recognition. J. Mol. Biol. 332: 1155-1163.
- 7. Kohl, A. and Grütter, M.G. 2004. Fire and death: the Pyrin domain joins the death-domain superfamily. C. R. Biol. 327: 1077-1086.
- Natarajan, A., Ghose, R. and Hill, J.M. 2006. Structure and dynamics of ASC2, a Pyrin domain-only protein that regulates inflammatory signaling. J. Biol. Chem. 281: 31863-31875.
- 9. Stehlik, C. 2007. The Pyrin domain in signal transduction. Curr. Protein Pept. Sci. 8: 293-310.

CHROMOSOMAL LOCATION

Genetic locus: PYDC1 (human) mapping to 16p11.2.

SOURCE

ASC2 (FL-89) is a rabbit polyclonal antibody raised against amino acids 1-89 representing full length ASC2 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ASC2 (FL-89) is recommended for detection of ASC2 of human origin by Western Blotting (starting dilution 1:200, 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); may cross-react with PYD and CARD domain containing isoform b.

Suitable for use as control antibody for ASC2 siRNA (h): sc-93399, ASC2 shRNA Plasmid (h): sc-93399-SH and ASC2 shRNA (h) Lentiviral Particles: sc-93399-V.

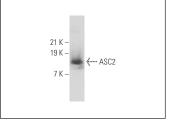
Molecular Weight of ASC2: 11 kDa.

Positive Controls: human lymph node extract: sc-363768.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ASC2 (FL-89): sc-98694. Western blot analysis of ASC2 expression in human lymph node tissue extract.

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.

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