SANTA CRUZ BIOTECHNOLOGY, INC.

A20 (H-100): sc-22834

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

A20 is a Cys2/Cys2 zinc finger protein that is induced by a variety of inflammatory stimuli and regulates gene expression. Specfically, A20 is induced by tumor necrosis factor (TNF) and interleukin-1 (IL-1), and acts as a negative regulator of nuclear factor κB (NFκB) gene expression. By inhibiting NFκB activation, A20 plays a critical role in terminating NFκB responses to various stimuli. Although the C-terminal region of A20 contains seven zinc finger domains, only four of these domains are required for *in vitro* inhibition of TNF-induced NFκB activation. A20 also interacts with several other proteins, such as TRAF2, TRAF6 and IkB kinase (IKK) γ protein, and thereby can inhibit cell death. In addition, the novel A20-binding protein TXBP151 may mediate the anti-apoptotic activity of A20. Involved in the negative feedback regulation of signal transduction, A20 and A20-binding proteins may be useful as novel therapeutic tools in the treatment of a variety of diseases.

CHROMOSOMAL LOCATION

Genetic locus: TNFAIP3 (human) mapping to 6q23.3; Tnfaip3 (mouse) mapping to 10 A3.

SOURCE

A20 (H-100) is a rabbit polyclonal antibody raised against amino acids 1-100 of A20 of human origin.

PRODUCT

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

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-22834 X, 200 µg/0.1 ml.

APPLICATIONS

A20 (H-100) is recommended for detection of A20 of mouse, rat and 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)], 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). A20 (H-100) is also recommended for detection of A20 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for A20 siRNA (h): sc-37655, A20 siRNA (m): sc-37656, A20 shRNA Plasmid (h): sc-37655-SH, A20 shRNA Plasmid (m): sc-37656-SH, A20 shRNA (h) Lentiviral Particles: sc-37655-V and A20 shRNA (m) Lentiviral Particles: sc-37656-V.

A20 (H-100) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of A20: 90 kDa.

Positive Controls: U-937 cell lysate: sc-2239, Jurkat whole cell lysate: sc-2204 or Daudi cell lysate: sc-2415.

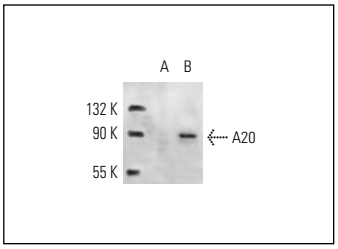
RESEARCH USE

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

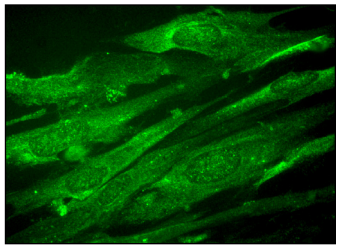
STORAGE

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

DATA



A20 (H-100): sc-22834. Western blot analysis of A20 expression in uninduced (**A**) and TNFα induced MCF7 (**B**) whole cell lysates.



A20 (H-100): sc-22834. Immunofluorescence staining of methanol-fixed WI-38 cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Yokota, S., et al. 2008. Measles virus P protein suppresses Toll-like receptor signal through up-regulation of ubiquitin-modifying enzyme A20. FASEB J. 22: 74-83.
2. Ning, S. and Pagano, J.S. 2010. The A20 deubiquitinase activity negatively regulates LMP1 activation of IRF7. J. Virol. 84: 6130-6138.
3. Inomata, M., et al. 2012. Regulation of Toll-like receptor signaling by NDP52-mediated selective autophagy is normally inactivated by A20. Cell. Mol. Life Sci. 69: 963-979.
4. Charan, R.A., et al. 2012. Deubiquitinating enzyme A20 negatively regulates NFκB signaling in skeletal muscle in mdx mice. FASEB J. 26: 587-595.
5. Charan, R.A., et al. 2012. Adeno-associated virus serotype 8 (AAV8) delivery of recombinant A20 to skeletal muscle reduces pathological activation of nuclear factor NF-κB in muscle of mdx mice. Mol. Med. 18: 1527-1535.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.