

A20 (P-17): sc-32524

BACKGROUND

A20 is a Cys2/Cys2 zinc finger protein that is induced by a variety of inflammatory stimuli and regulates gene expression. Specifically, A20 is induced by tumor necrosis factor (TNF) and interleukin 1 (IL-1), and acts as a negative regulator of nuclear factor κ B (NF κ B) gene expression. By inhibiting NF κ B activation, A20 plays a critical role in terminating NF κ B 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 NF κ B activation. A20 also interacts with several other proteins, such as TRAF2, TRAF6 and I κ B 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.

REFERENCES

1. De Valck, D., Jin, D.Y., Heyninck, K., Van de Craen, M., Contreras, R., Fiers, W., Jeang, K.T. and Beyaert, R. 1999. The zinc finger protein A20 interacts with a novel anti-apoptotic protein which is cleaved by specific caspases. *Oncogene* 29: 4182-4190.
2. Beyaert, R., Heyninck, K. and Van Huffel, S. 2000. A20 and A20-binding proteins as cellular inhibitors of NF κ B-dependent gene expression and apoptosis. *Biochem. Pharmacol.* 8: 1143-1151.
3. Van Huffel, S., Delaei, F., Heyninck, K., De Valck, D. and Beyaert, R. 2001. Identification of a novel A20-binding inhibitor of NF κ B activation termed ABIN-2. *J. Biol. Chem.* 276: 30216-30223.
4. Lademann, U., Kallunki, T. and Jaattela, M. 2001. A20 zinc finger protein inhibits TNF-induced apoptosis and stress response early in the signaling cascades and independently of binding to TRAF2 or 14-3-3 proteins. *Cell Death Differ.* 3: 265-272.
5. Klinkenberg, M., Van Huffel, S., Heyninck, K. and Beyaert, R. 2001. Functional redundancy of the zinc fingers of A20 for inhibition of NF κ B activation and protein-protein interactions. *FEBS Lett.* 1: 93-97.

CHROMOSOMAL LOCATION

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

SOURCE

A20 (P-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of A20 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-32524 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-32524 X, 200 μ g/0.1 ml.

APPLICATIONS

A20 (P-17) is recommended for detection of A20 of mouse 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).

A20 (P-17) 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 (P-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of A20: 90 kDa.

Positive Controls: Daudi cell lysate: sc-2415, Jurkat whole cell lysate: sc-2204 or U-937+TNF α cell lysate: sc-2297.

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.

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 or our catalog for detailed protocols and support products.



Try **A20 (A-12): sc-166692** or **A20 (B-5): sc-376564**, our highly recommended monoclonal alternatives to A20 (P-17). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **A20 (A-12): sc-166692**.