SANTA CRUZ BIOTECHNOLOGY, INC.

NOXA (F-3): sc-515840

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Members of the Bcl-2 family of proteins interact to regulate programmed cell death (apoptosis) under a broad range of physiological conditions. Bcl-2, Bcl-x_L, and several related proteins inhibit apoptosis, whereas other members of the Bcl-2 family, such as Bax and Bak, enhance cell death. NOXA, a pro-apoptotic member of the Bcl-2 family, contains the Bcl-2 homology 3 (BH3) region, but does not contain other BH domains. Murine cells constitutively express NOXA mRNA in small amounts in various organs; X-ray irradiation increases NOXA mRNA and protein expression levels. In human cells, NOXA, alternatively designated PMA-induced protein 1 or APR, displays high expression in the adult T cell leukemia cell line IKD, where it may function as an immediate-early-response gene. The NOXA protein selectively localizes to mitochondria.

CHROMOSOMAL LOCATION

Genetic locus: PMAIP1 (human) mapping to 18q21.32.

SOURCE

NOXA (F-3) is a mouse monoclonal antibody raised against amino acids 1-54 representing full length NOXA of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NOXA (F-3) is available conjugated to agarose (sc-515840 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515840 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515840 PE), fluorescein (sc-515840 FITC), Alexa Fluor® 488 (sc-515840 AF488), Alexa Fluor® 546 (sc-515840 AF546), Alexa Fluor® 594 (sc-515840 AF594) or Alexa Fluor® 647 (sc-515840 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515840 AF680) or Alexa Fluor® 790 (sc-515840 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

NOXA (F-3) is recommended for detection of NOXA of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for NOXA siRNA (h): sc-37305, NOXA shRNA Plasmid (h): sc-37305-SH and NOXA shRNA (h) Lentiviral Particles: sc-37305-V.

Molecular Weight of NOXA: 15 kDa.

Positive Controls: NOXA (h): 293T Lysate: sc-117157.

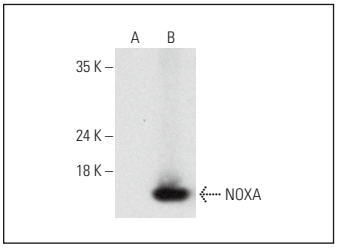
RESEARCH USE

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

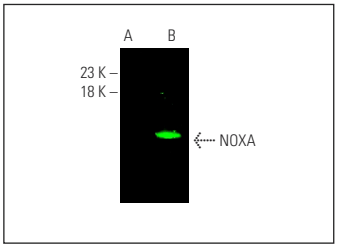
STORAGE

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

DATA



NOXA (F-3): sc-515840. Western blot analysis of NOXA expression in non-transfected: sc-117752 (**A**) and human NOXA transfected: sc-117157 (**B**) 293T whole cell lysates.



NOXA (F-3): sc-515840. Near-infrared western blot analysis of NOXA expression in non-transfected: sc-117752 (**A**) and human NOXA transfected: sc-117157 (**B**) 293T whole cell lysates. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

SELECT PRODUCT CITATIONS

1. Zheng, S., et al. 2017. Inhibiting p53 acetylation reduces cancer chemotoxicity. Cancer Res. 77: 4342-4354.
2. Pan, L., et al. 2018. Inflammatory stimuli promote oxidative stress in pancreatic acinar cells via Toll-like receptor 4/nuclear factor-κB pathway. Int. J. Mol. Med. 42: 3582-3590.
3. Do, H., et al. 2019. TFAP2C increases cell proliferation by downregulating GADD45B and PMAIP1 in non-small cell lung cancer cells. Biol. Res. 52: 35.
4. Yan, J., et al. 2020. Copanlisib promotes growth inhibition and apoptosis by modulating the AKT/FoxO3a/PUMA axis in colorectal cancer. Cell Death Dis. 11: 943.
5. Semlali, A., et al. 2021. Effects of tetrahydrocannabinols on human oral cancer cell proliferation, apoptosis, autophagy, oxidative stress, and DNA damage. Arch. Oral Biol. 129: 105200.
6. Pollak, N., et al. 2021. Cell cycle progression and transmitotic apoptosis resistance promote escape from extrinsic apoptosis. J. Cell Sci. 134: jcs258966.
7. Li, J., et al. 2023. Combined inhibition of Aurora Kinases and Bcl-x_L induces apoptosis through select BH3-only proteins. J. Biol. Chem. 299: 102875.
8. Issa, H., et al. 2024. Eugenol as a potential adjuvant therapy for gingival squamous cell carcinoma. Sci. Rep. 14: 10958.

PROTOCOLS

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