SANTA CRUZ BIOTECHNOLOGY, INC.

WWOX (D-9): sc-390175

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

WWOX (WW domain containing oxidoreductase) protein is a candidate tumor suppressor consisting of two WW domains that influence protein-protein interactions, and a short chain dehydrogenase (SDR) domain, that influences sex-steroid metabolism. Modulation of the WWOX gene influences esophageal squamous cell carcinogenesis and tumorigenicity of breast cancer cell lines MDA-MB-435 and T47D. The murine homolog WOX1 localizes in the mitochondria, and contains a mitochondrial targeting sequence mapping within the SDR domain. JNK1 can physically associate with WOX1 and sequester WOX1-dependent apoptosis.

REFERENCES

1. Bednarek, A.K., et al. 2001. WWOX, the FRA16D gene, behaves as a suppressor of tumor growth. Cancer Res. 61: 8068-8073.
2. Chang, N.S., et al. 2001. Hyaluronidase induction of a WW domain-containing oxidoreductase that enhances tumor necrosis factor cytotoxicity. J. Biol. Chem. 276: 3361-3370.
3. Kuroki, T., et al. 2002. Genetic alterations of the tumor suppressor gene WWOX in esophageal squamous cell carcinoma. Cancer Res. 62: 2258-2260.
4. Ludes-Meyers, J.H., et al. 2003. WWOX, the common chromosomal fragile site, FRA16D, cancer gene. Cytogenet. Genome Res. 100: 101-110.

CHROMOSOMAL LOCATION

Genetic locus: WWOX (human) mapping to 16q23.1; Wwox (mouse) mapping to 8 E1.

SOURCE

WWOX (D-9) is a mouse monoclonal antibody raised against amino acids 1-126 mapping at the N-terminus of WWOX 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.

APPLICATIONS

WWOX (D-9) is recommended for detection of WWOX of mouse, rat and 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 WWOX siRNA (h): sc-44193, WWOX siRNA (m): sc-155368, WWOX shRNA Plasmid (h): sc-44193-SH, WWOX shRNA Plasmid (m): sc-155368-SH, WWOX shRNA (h) Lentiviral Particles: sc-44193-V and WWOX shRNA (m) Lentiviral Particles: sc-155368-V.

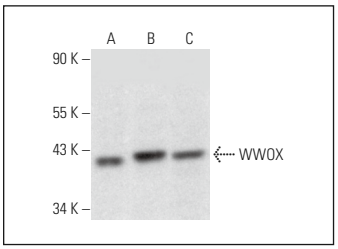
Molecular Weight of WWOX: 46 kDa.

Positive Controls: mouse ovary extract: sc-2404, Hep G2 cell lysate: sc-2227 or Sol8 cell lysate: sc-2249.

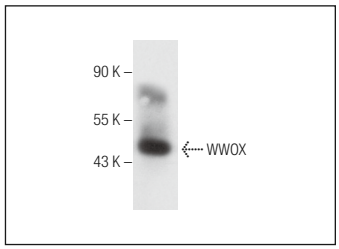
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



WWOX (D-9): sc-390175. Western blot analysis of WWOX expression in Hep G2 (**A**), Sol8 (**B**) and RIN-m5F (**C**) whole cell lysates.



WWOX (D-9): sc-390175. Western blot analysis of WWOX expression in mouse ovary tissue extract.

SELECT PRODUCT CITATIONS

1. Yang, W., et al. 2017. Exploring the mechanism of WWOX growth inhibitory effects on oral squamous cell carcinoma. Oncol. Lett. 13: 3198-3204.
2. Su, W.P., et al. 2020. Therapeutic Zfra4-10 or WWOX7-21 peptide induces complex formation of WWOX with selective protein targets in organs that leads to cancer suppression and spleen cytotoxic memory Z cell activation *in vivo*. Cancers 12: 2189.
3. Lin, Y.H., et al. 2022. Zfra inhibits the TRAPPC6AΔ-initiated pathway of neurodegeneration. Int. J. Mol. Sci. 23: 14510.

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 for detailed protocols and support products.