

# WWOX (D-9): sc-390175

## 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<sub>1</sub> 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.

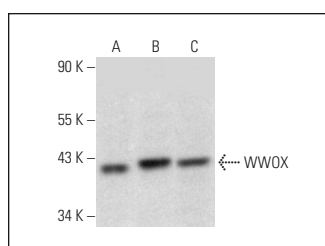
Molecular Weight of WWOX: 46 kDa.

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

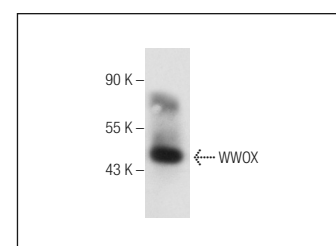
## RECOMMENDED SUPPORT REAGENTS

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: E2189.

## 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](http://www.scbt.com) for detailed protocols and support products.