

WWOX (N-19): sc-20528

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.

CHROMOSOMAL LOCATION

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

SOURCE

WWOX (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of WWOX 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.

Blocking peptide available for competition studies, sc-20528 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

WWOX (N-19) is recommended for detection of WWOX 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).

WWOX (N-19) is also recommended for detection of WWOX in additional species, including equine, canine, bovine and avian.

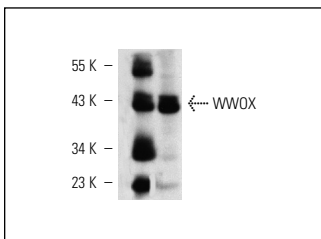
Suitable for use as control antibody for WWOX siRNA (h): sc-44193, WWOX siRNA (m): sc-155368, WWOX shRNA Plasmid (h): sc-44193-SH, WWOX shRNA Plasmid (m): sc-155368-SH, WWOX shRNA (h) Lentiviral Particles: sc-44193-V and WWOX shRNA (m) Lentiviral Particles: sc-155368-V.

Molecular Weight of WWOX: 46 kDa.

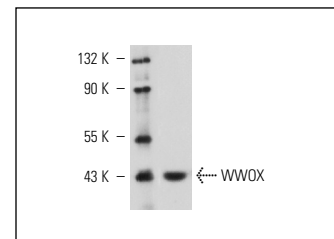
Positive Controls: mouse ovary extract: sc-2404.

STORAGE

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

DATA

WWOX (N-19): sc-20528. Western blot analysis of WWOX expression in mouse ovary tissue extract.



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SELECT PRODUCT CITATIONS

1. Chang, N.S., et al. 2005. 17β-Estradiol upregulates and activates WOX1/WWOXv1 and WOX2/WWOXv2 *in vitro*: potential role in cancerous progression of breast and prostate to a premetastatic state *in vivo*. *Oncogene* 24: 714-723.
2. Chang, N.S., et al. 2005. WOX1 is essential for tumor necrosis factor, UV light, Staurosporine, and p53-mediated cell death, and its tyrosine 33-phosphorylated form binds and stabilizes serine 46-phosphorylated p53. *J. Biol. Chem.* 280: 43100-43108.
3. Chen, S.T., et al. 2005. Light-induced retinal damage involves tyrosine 33 phosphorylation, mitochondrial and nuclear translocation of WW domain-containing oxidoreductase *in vivo*. *Neuroscience* 130: 397-407.
4. Suzuki, H., et al. 2009. A spontaneous mutation of the Wwox gene and audiogenic seizures in rats with lethal dwarfism and epilepsy. *Genes Brain Behav.* 8: 650-660.
5. Matteucci, E., et al. 2012. Bone metastatic process of breast cancer involves methylation state affecting E-cadherin expression through TAZ and WWOX nuclear effectors. *Eur. J. Cancer* 49: 231-244.
6. Bendinelli, P., et al. 2013. Hypoxia inducible factor-1 is activated by transcriptional co-activator with PDZ-binding motif (TAZ) versus WW domain-containing oxidoreductase (WWOX) in hypoxic microenvironment of bone metastasis from breast cancer. *Eur. J. Cancer*. E-Published.

RESEARCH USE

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

MONOS
Satisfaction
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Try **WWOX (C-7): sc-374449** or **WWOX (A-5): sc-373846**, our highly recommended monoclonal alternatives to WWOX (N-19).