SANTA CRUZ BIOTECHNOLOGY, INC.

OXNAD1 (E-15): sc-100080

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

OXNAD1 (Oxidoreductase NAD-binding domain-containing protein 1) is a 312 amino acid protein that contains one FAD-binding FR-type domain, which is a cylindrical β-domain with a flattened six-stranded antiparallel β-barrel. The gene encoding OXNAD1 maps to chromosome 3, which is made up of about 214 million bases and encodes over 1,100 genes. Notably, there is a chemokine receptor gene cluster and a variety of human cancer related loci on chromosome 3. Particular regions of the chromosome 3 short arm are deleted in many types of cancer cells. Key tumor suppressing genes on chromosome 3 encode apoptosis mediator RASSF1, cell migration regulator HYAL1 and angiogenesis suppressor SEMA3B. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

REFERENCES

1. Müller, S., et al. 2000. Molecular cytogenetic dissection of human chromosomes 3 and 21 evolution. Proc. Natl. Acad. Sci. USA 97: 206-211.
2. Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. Mol. Biol. 37: 194-211.
3. Tsend-Ayush, E., et al. 2004. Plasticity of human chromosome 3 during primate evolution. Genomics 83: 193-202.
4. Yue, Y., et al. 2005. Comparative cytogenetics of human chromosome 3q21.3 reveals a hot spot for ectopic recombination in hominoid evolution. Genomics 85: 36-47.
5. Darai, E., et al. 2005. Evolutionarily plastic regions at human 3p21.3 coincide with tumor breakpoints identified by the "elimination test." Genomics 86: 1-12.
6. Yue, Y., et al. 2005. Genomic structure and paralogous regions of the inversion breakpoint occurring between human chromosome 3p12.3 and orangutan chromosome 2. Cytogenet. Genome Res. 108: 98-105.
7. Nareyeck, G., et al. 2006. Establishment and characterization of two uveal melanoma cell lines derived from tumors with loss of one chromosome 3. Exp. Eye Res. 83: 858-864.

CHROMOSOMAL LOCATION

Genetic locus: OXNAD1 (human) mapping to 3p25.1; Oxnad1 (mouse) mapping to 14 B.

SOURCE

OXNAD1 (E-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of OXNAD1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-100080 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

OXNAD1 (E-15) is recommended for detection of OXNAD1 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).

OXNAD1 (E-15) is also recommended for detection of OXNAD1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for OXNAD1 siRNA (h): sc-78281, OXNAD1 siRNA (m): sc-151951, OXNAD1 shRNA Plasmid (h): sc-78281-SH, OXNAD1 shRNA Plasmid (m): sc-151951-SH, OXNAD1 shRNA (h) Lentiviral Particles: sc-78281-V and OXNAD1 shRNA (m) Lentiviral Particles: sc-151951-V.

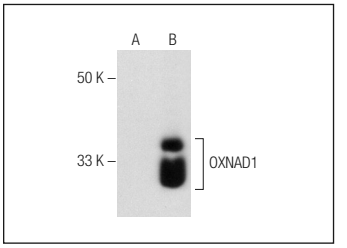
Molecular Weight of OXNAD1: 35 kDa.

Positive Controls: OXNAD1 (m): 293T Lysate: sc-122294.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



OXNAD1 (E-15): sc-100080. Western blot analysis of OXNAD1 expression in non-transfected: sc-117752 (**A**) and mouse OXNAD1 transfected: sc-122294 (**B**) 293T whole cell lysates.

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.