

OXR1 (H-85): sc-134748

BACKGROUND

Oxidative stress-responsive 1 protein (OXR1), a protein of 527 amino acids, belongs to the STE20 subfamily. OXR1 is one of two human homologs of Fray, a serine/threonine kinase expressed in *Drosophila*. OXR1 binds to and phosphorylates p21-activated protein kinase (PAK1) and regulates downstream kinases in response to environmental stress. Endogenous OXR1 is activated only by osmotic stresses, notably sorbitol and to a lesser extent NaCl. OXR1 may also play a role in regulating the Actin cytoskeleton. The chloride channel proteins SLC12A1, SLC12A2 and SLC12A6 isoform 2 interact with OXR1, but SLC12A4 and SLC12A7 do not. The WNK1 and WNK4 protein kinases activate OXR1 by phosphorylating its T-loop. The OXR1 protein is widely expressed in mammalian tissues.

REFERENCES

1. Tamari, M., et al. 1999. Isolation and characterization of a novel serine/threonine kinase gene on chromosome 3p22-21.3. *J. Hum. Genet.* 44: 116-120.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604046. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: OXR1 (human) mapping to 3p22.2; Oxsr1 (mouse) mapping to 9 F3.

SOURCE

OXR1 (H-85) is a rabbit polyclonal antibody raised against amino acids 351-435 mapping within an internal region of OXR1 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.

APPLICATIONS

OXR1 (H-85) is recommended for detection of OXR1 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).

OXR1 (H-85) is also recommended for detection of OXR1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for OXR1 siRNA (h): sc-61273, OXR1 siRNA (m): sc-61274, OXR1 shRNA Plasmid (h): sc-61273-SH, OXR1 shRNA Plasmid (m): sc-61274-SH, OXR1 shRNA (h) Lentiviral Particles: sc-61273-V and OXR1 shRNA (m) Lentiviral Particles: sc-61274-V.

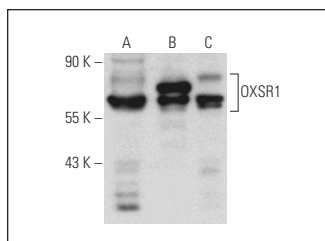
Molecular Weight of OXR1: 58 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, HeLa whole cell lysate: sc-2200 or OXR1 (h3): 293 Lysate: sc-158793.

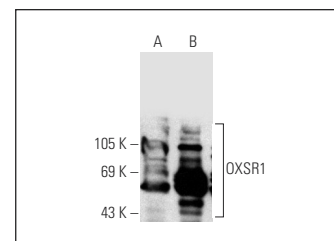
RECOMMENDED SECONDARY REAGENTS

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



OXR1 (H-85): sc-134748. Western blot analysis of OXR1 expression in non-transfected 293: sc-110760 (A), human OXR1 transfected 293: sc-158793 (B) and HeLa (C) whole cell lysates.



OXR1 (H-85): sc-134748. Western blot analysis of OXR1 expression in non-transfected: sc-117752 (A) and human OXR1 transfected: sc-171465 (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.

PROTOCOLS

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



Try **OXR1 (A-4): sc-271707** or **OXR1 (SQ-39): sc-100361**, our highly recommended monoclonal alternatives to OXR1 (H-85).