BACKGROUND
Oxidative stress-responsive 1 protein (OXSR1), a 58 kDa protein of 527 amino acids, belongs to the STE20 subfamily. OXSR1 is one of two human homologs of Fray, a serine/threonine kinase expressed in Drosophila. OXSR1 binds to and phosphorylates p21-activated protein kinase PAK1 and regulates downstream kinases in response to environmental stress. Endogenous OXSR1 is activated only by osmotic stresses, notably sorbitol and to a lesser extent NaCl. OXSR1 may also play a role in regulating the Actin cytoskeleton. The chloride channel proteins SLC12A1, SLC12A2 and SLC12A6 isoform 2 interact with OXSR1, but SLC12A4 and SLC12A7 do not. The WNK1 and WNK4 protein kinases activate OXSR1 by phosphorylating its T-loop. The OXSR1 protein is widely expressed in mammalian tissues.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: OXSR1 (human) mapping to 3p22.2.

SOURCE
OXSR1 (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of OXSR1 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-49471 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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

APPLICATIONS
OXSR1 (E-18) is recommended for detection of OXSR1 of 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).

OXSR1 (E-18) is also recommended for detection of OXSR1 in additional species, including equine and canine.

Suitable for use as control antibody for OXSR1 siRNA (h): sc-61273, OXSR1 shRNA Plasmid (h): sc-61273-SH and OXSR1 shRNA (h) Lentiviral Particles: sc-61273-V.

Molecular Weight of OXSR1: 58 kDa.
Positive Controls: OXSR1 (h): 293T Lysate: sc-171465 or HeLa nuclear extract: sc-2120.

RECOMMENDED SECONDARY REAGENTS
To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA

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.