

## TAO2 (K-16): sc-47447

### BACKGROUND

Several mammalian kinases have been identified with sequence similarity to the *Saccharomyces cerevisiae* serine/threonine kinase Ste20. Ste20 is involved in relaying signals from G protein-coupled receptors to cytosolic MAP kinase cascades, and it lies upstream of a MEK kinase. Thousand and one amino acid protein 2 (TAO2), also designated prostate-derived Ste20-like kinase 1 (PSK1) or kinase from chicken homolog C (KFC-C), belongs to the Ste20 subfamily of the Ser/Thr protein kinase family. TAO2 acts as an activator of the JNK MAP kinase pathway through the specific activation of MKK3 and MKK6 kinases. It is a multi-pass membrane protein detected in cytoplasmic vesicle membranes. TAO2 is ubiquitously expressed with highest levels found in brain and testes.

### CHROMOSOMAL LOCATION

Genetic locus: TAOK2 (human) mapping to 16p11.2; Taok2 (mouse) mapping to 7 F3.

### SOURCE

TAO2 (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TAO2 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-47447 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

TAO2 (K-16) is recommended for detection of TAO2 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).

TAO2 (K-16) is also recommended for detection of TAO2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TAO2 siRNA (h): sc-61642, TAO2 siRNA (m): sc-61643, TAO2 shRNA Plasmid (h): sc-61642-SH, TAO2 shRNA Plasmid (m): sc-61643-SH, TAO2 shRNA (h) Lentiviral Particles: sc-61642-V and TAO2 shRNA (m) Lentiviral Particles: sc-61643-V.

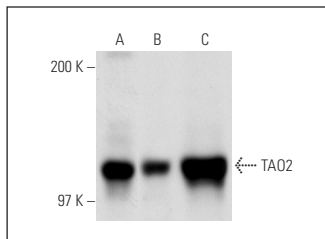
Molecular Weight of TAO2: 120 kDa.

Positive Controls: PC-12 cell lysate: sc-2250, mouse brain extract: sc-2253 or rat cerebellum extract: sc-2398.

### 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



TAO2 (K-16): sc-47447. Western blot analysis of TAO2 expression in PC-12 whole cell lysate (A) and rat hypothalamus (B) and mouse brain (C) tissue extracts.

### SELECT PRODUCT CITATIONS

- de Anda, F.C., et al. 2012. Autism spectrum disorder susceptibility gene TAOK2 affects basal dendrite formation in the neocortex. *Nat. Neurosci.* 15: 1022-1031.

### 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) or our catalog for detailed protocols and support products.

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Try **TAO2 (C-2): sc-514268** or **TAO2 (H-8): sc-514254**, our highly recommended monoclonal alternatives to TAO2 (K-16).