

oligophrenin-1 (C-19): sc-8374

BACKGROUND

Ras p21 can exist in either a physiologically quiescent GDP-binding state or a GTP-binding signal-emitting state. Interaction of Ras p21 with GTPase activating protein (GAP) can increase the rate of hydrolysis of Ras p21-bound GTP by as much as 1000-fold. In mitogenically activated and tyrosine kinase-transformed cells, Ras GAP forms a complex with a protein designated p190. At its amino-terminus, p190 contains sequence motifs characteristic of all known GTPases, whereas the carboxy-terminus contains sequences similar to those found in the Bcr gene product, n-chimerin and Rho GAP, all of which exhibit intrinsic GAP activity. Oligophrenin-1 is an additional protein with GTPase activating activity. Oligophrenin-1 is a RhoGAP protein that stimulates GTP hydrolysis of Rho subfamily members and is involved in cell migration, morphogenesis and axon outgrowth.

CHROMOSOMAL LOCATION

Genetic locus: OPHN1 (human) mapping to Xq12; Ophn1 (mouse) mapping to X C3.

SOURCE

oligophrenin-1 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of oligophrenin-1 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-8374 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

oligophrenin-1 (C-19) is recommended for detection of oligophrenin-1 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).

oligophrenin-1 (C-19) is also recommended for detection of oligophrenin-1 in additional species, including equine and bovine.

Suitable for use as control antibody for oligophrenin-1 siRNA (h): sc-36125, oligophrenin-1 siRNA (m): sc-36126, oligophrenin-1 shRNA Plasmid (h): sc-36125-SH, oligophrenin-1 shRNA Plasmid (m): sc-36126-SH, oligophrenin-1 shRNA (h) Lentiviral Particles: sc-36125-V and oligophrenin-1 shRNA (m) Lentiviral Particles: sc-36126-V.

Molecular Weight of oligophrenin-1: 91 kDa.

Positive Controls: oligophrenin-1 (m): 293T Lysate: sc-110337, H4 cell lysate: sc-2408 or IMR-32 cell lysate: sc-2409.

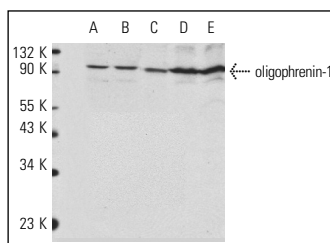
STORAGE

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

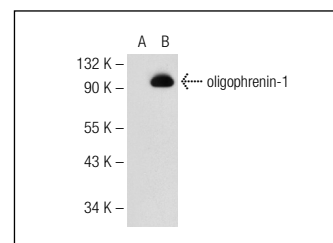
RESEARCH USE

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

DATA



oligophrenin-1 (C-19): sc-8374. Western blot analysis of oligophrenin-1 expression in H4 (A) and IMR-32 (B) whole cell lysates and mouse embryo (C), rat brain (D) and mouse brain (E) extracts.



oligophrenin-1 (C-19): sc-8374. Western blot analysis of oligophrenin-1 expression in non-transfected: sc-117752 (A) and mouse oligophrenin-1 transfected: sc-110337 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Xiao, J., et al. 2004. Evidence that a major site of expression of the RHO-GTPase activating protein, oligophrenin-1, is peripheral myelin. *Neuroscience* 124: 781-787.
- Khelifaoui M., et al. 2009. Inhibition of RhoA pathway rescues the endocytosis defects in oligophrenin-1 mouse model of mental retardation. *Hum. Mol. Genet.* 18: 2575-2583.
- Pirozzi, F., et al. 2011. Insertion of 16 amino acids in the BAR domain of the oligophrenin 1 protein causes mental retardation and cerebellar hypoplasia in an Italian family. *Hum. Mutat.* 32: E2294-E2307.

PROTOCOLS

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



Try **oligophrenin-1 (A-12): sc-374330** or **oligophrenin-1 (E-8): sc-376462**, our highly recommended monoclonal alternatives to oligophrenin-1 (C-19).