

oligophrenin-1 (m2): 293T Lysate: sc-122239

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 Rho GAP protein that stimulates GTP hydrolysis of Rho subfamily members and is involved in cell migration, morphogenesis and axon outgrowth.

REFERENCES

1. Barbacid, M. 1987. Ras genes. *Annu. Rev. Biochem.* 56: 779-827.
2. Trahey, M. and McCormick, F. 1987. A cytoplasmic protein stimulates normal N-Ras p21 GTPase, but does not affect oncogenic mutants. *Science* 242: 1697-1700.
3. Sanders, D.A. 1990. A guide to the low molecular weight GTPases. *Cell Growth Differ.* 1: 251-258.
4. Bourne, H.R., Sanders, D.A. and McCormick, F. 1990. The GTPase superfamily: a conserved switch for diverse cell functions. *Nature* 348: 125-132.
5. Settleman, J., Narasimhan, V., Foster, L.C. and Weinberg, R.A. 1992. Molecular cloning of cDNAs encoding the GAP-associated protein p190: implications for a signaling pathway from Ras to the nucleus. *Cell* 69: 539-549.
6. Billuart, P., Bienvenu, T., Ronce, N., des Portes, V., Vinet, M.C., Zemni, R., Carrie, A., Beldjord, C., Kahn, A., Moraine, C. and Chelly, J. 1998. oligophrenin-1 encodes a Rho GAP protein involved in X-linked mental retardation. *Pathol. Biol.* 46: 678.

CHROMOSOMAL LOCATION

Genetic locus: Ophn1 (mouse) mapping to X C3.

PRODUCT

oligophrenin-1 (m2): 293T Lysate represents a lysate of mouse oligophrenin-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

oligophrenin-1 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive oligophrenin-1 antibodies. Recommended use: 10-20 µl per lane.

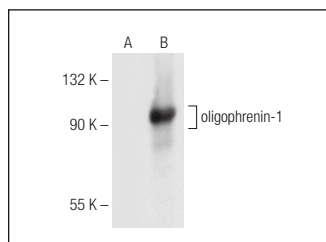
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

oligophrenin-1 (A-12): sc-374330 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse oligophrenin-1 expression in oligophrenin-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

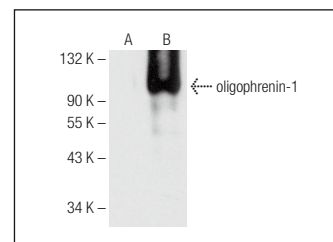
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



oligophrenin-1 (A-12): sc-374330. Western blot analysis of oligophrenin-1 expression in non-transfected: sc-117752 (A) and mouse oligophrenin-1 transfected: sc-122239 (B) 293T whole cell lysates.



oligophrenin-1 (F-3): sc-376037. Western blot analysis of oligophrenin-1 expression in non-transfected: sc-117752 (A) and mouse oligophrenin-1 transfected: sc-122239 (B) 293T whole cell lysates.

RESEARCH USE

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