



PHACTR4 (h): 293T Lysate: sc-373558

BACKGROUND

Phosphatase and Actin regulator (PHACTR) family of proteins play a key role in inhibiting the activity of a multifunctional enzyme, protein phosphatase 1 (PP1). PP1 promotes synaptic activity and dendritic morphology in the nervous system. It is suggested that members of the PHACTR family members may be involved in regulation of cytoskeletal dynamics due to their interaction with cytoplasmic β -Actin and globular Actin (G-Actin). PHACTR4 (phosphatase and actin regulator 4), also known as PRO2963, is a 702 amino acid protein that regulates neural tube and optic fissure closure. PHACTR4 contains three RPEL motifs and multiple phosphorylation sites. Six isoforms exist due to alternative splicing events.

REFERENCES

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2. Oliver, C.J., et al. 2002. Targeting protein phosphatase 1 (PP1) to the actin cytoskeleton: the neurabin I/PP1 complex regulates cell morphology. *Mol. Cell. Biol.* 22: 4690-4701.
3. Allen, P.B., et al. 2004. Phactrs 1-4: A family of protein phosphatase 1 and actin regulatory proteins. *Proc. Natl. Acad. Sci. USA* 101: 7187-7192.
4. Hu, X.D., et al. 2006. Actin-associated neurabin-protein phosphatase-1 complex regulates hippocampal plasticity. *J. Neurochem.* 98: 1841-1851.
5. Kim, T.H., et al. 2007. Phactr4 regulates neural tube and optic fissure closure by controlling PP1-, Rb-, and E2F1-regulated cell-cycle progression. *Dev. Cell* 13: 87-102.
6. Larson, J.R., et al. 2008. Protein phosphatase type 1 directs chitin synthesis at the bud neck in *Saccharomyces cerevisiae*. *Mol. Biol. Cell* 19: 3040-3051.

CHROMOSOMAL LOCATION

Genetic locus: PHACTR4 (human) mapping to 1p35.3.

PRODUCT

PHACTR4 (h): 293T Lysate represents a lysate of human PHACTR4 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

PHACTR4 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PHACTR4 antibodies. Recommended use: 10-20 μ l per lane.

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

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.

RESEARCH USE

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

PROTOCOLS

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