Centaurin α2 (m): 293T Lysate: sc-125126



The Power to Question

BACKGROUND

The ADP-ribosylation factor (ARF) family of small GTP-binding proteins are involved in vesicular transport regulation and in controlling cytoskeletal organization and cell adhesion. The Centaurin GTPase-activating protein family comprise a subset of ARF regulatory molecules that transduce PI 3-kinase activation into coordinated control of ARF-dependent pathways. This family includes ASAP1, ACAP1, ACAP2, AGAP1, ARAP1, ARAP2, Centaurin α 1, Centaurin γ 3 and the recently discovered Centaurin α 2. Expressed in a wide variety of tissues such as fat, heart and skeletal muscle, Centaurin α 2 is thought to negatively regulate ARF-mediated actin rearrangement by binding activated PI 3-kinase. Although the exact function of Centaurin α 2 is not yet known, its high sequence similarity with Centaurin α 1 suggests that it may also act as an ARF6 GTPase.

REFERENCES

- 1. Dubois, T., Kerai, P., Zemlickova, E., Howell, S., Jackson, T.R., Venkateswarlu, K., Cullen, P.J., Theibert, A.B., Larose, L., Roach, P.J. and Aitken, A. 2001. Casein kinase I associates with members of the centaurin- α family of phosphatidylinositol 3,4,5-trisphosphate-binding proteins. J. Biol. Chem. 276: 18757-18764.
- 2. Whitley, P., Gibbard, A.M., Koumanov, F., Oldfield, S., Kilgour, E.E., Prestwich, G.D. and Holman, G.D. 2002. Identification of centaurin- α 2: a phosphatidylinositide-binding protein present in fat, heart and skeletal muscle. Eur. J. Cell Biol. 81: 222-230.
- 3. Hawadle, M.A., Folarin, N., Martin, R. and Jackson, T.R. 2002. Cytohesins and centaurins control subcellular trafficking of macromolecular signaling complexes: regulation by phosphoinositides and ADP-ribosylation factors. Biol. Res. 35: 247-265.
- 4. Hanck, T., Stricker, R., Sedehizade, F. and Reiser, G. 2003. Identification of gene structure and subcellular localization of human centaurin α 2, and p42^{IP4}, a family of two highly homologous, Ins 1,3,4,5-P4-/PtdIns 3,4,5-P3-binding, adapter proteins. J. Neurochem. 88: 326-336.
- 5. Thacker, E., Kearns, B., Chapman, C., Hammond, J., Howell, A. and Theibert, A. 2005. The arf6 GAP centaurin α -1 is a neuronal Actin-binding protein which also functions via GAP-independent activity to regulate the actin cytoskeleton. Eur. J. Cell Biol. 83: 541-554.
- Venturin, M., Bentivegna, A., Moroni, R., Larizza, L. and Riva, P. 2005.
 Evidence by expression analysis of candidate genes for congenital heart defects in the NF1 microdeletion interval. Ann. Hum. Genet. 69: 508-516.
- 7. Venkateswarlu, K., Brandom, K.G. and Yun, H. 2007. Pl-3-kinase-dependent membrane recruitment of centaurin-α2 is essential for its effect on ARF6-mediated actin cytoskeleton reorganisation. J. Cell Sci. 120: 792-801.

CHROMOSOMAL LOCATION

Genetic locus: Adap2 (mouse) mapping to 11 B5.

PRODUCT

Centaurin α 2 (m): 293T Lysate represents a lysate of mouse Centaurin α 2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

Centaurin α 2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Centaurin α 2 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.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com