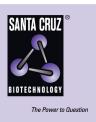
SANTA CRUZ BIOTECHNOLOGY, INC.

Centaurin γ3 (M-18): sc-47832



BACKGROUND

ADP-ribosylation factor (ARF) family of small GTP-binding proteins are involved in vesicular transport regulation and in controlling cytoskeletal organization and cell adhesion. These proteins are best characterized as regulators of membrane traffic. 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 and Centaurin γ 3. The Centaurin α 1 protein is a high affinity PtdIns(3,4,5)P3 binding protein enriched in brain. By acting as a GTPase activating protein for ADP ribosylation factor 6 (ARF6), Centaurin α 1 is able to switch off ARF6 and inhibit its ability to mediate β_2 -adrenoceptor internalization and negatively regulate ARF6 activity by functioning as an *in vivo* PIP3 dependent ARF6 GAP.

REFERENCES

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- 2. Thacker, E., Kearns, B., Chapman, C., Hammond J., Howell, A. and Theibert, A. 2004. 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.
- Venkateswarlu, K., Brandom, K.G. and Lawrence, J.L. 2004. Centaurin α1 is an *in vivo* phosphatidylinositol 3,4,5-trisphosphate-dependent GTPaseactivating protein for ARF6 that is involved in actin cytoskeleton organization. J. Biol. Chem. 279: 6205-6208.
- Venkateswarlu, K., Hanada, T. and Chishti, A.H. 2005. Centaurin α1 interacts directly with kinesin motor protein KIF13B. J. Cell Sci. 118: 2471-2484.
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- Lawrence, J., Mundell, S.J., Yun, H., Kelly, E. and Venkateswarlu, K. 2005. Centaurin α1, an ADP-ribosylation factor 6 GTPase activating protein, inhibits β₂-adrenoceptor internalization. Mol. Pharmacol. 67: 1822-1828.

CHROMOSOMAL LOCATION

Genetic locus: CENTG3 (human) mapping to 7q36.1; Centg3 (mouse) mapping to 5 A3.

SOURCE

Centaurin $\gamma 3$ (M-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Centaurin $\gamma 3$ of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47832 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Centaurin γ 3 (M-18) is recommended for detection of Centaurin γ 3 of mouse 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); may cross-react with CENTG2.

Centaurin γ 3 (M-18) is also recommended for detection of Centaurin γ 3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Centaurin γ 3 siRNA (h): sc-60355, Centaurin γ 3 siRNA (m): sc-60356, Centaurin γ 3 shRNA Plasmid (h): sc-60355-SH, Centaurin γ 3 shRNA Plasmid (m): sc-60356-SH, Centaurin γ 3 shRNA (h) Lentiviral Particles: sc-60355-V and Centaurin γ 3 shRNA (m) Lentiviral Particles: sc-60356-V.

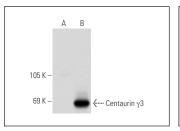
Molecular Weight of Centaurin y3 variant 1: 95 kDa.

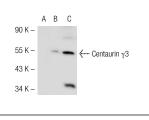
Molecular Weight of Centaurin y3 variant 2: 95 kDa.

Molecular Weight of Centaurin y3 variant 3: 40 kDa.

Positive Controls: Centaurin γ 3 (h): 293T Lysate: sc-177048, Centaurin γ 3 (m): 293T Lysate: sc-119171 or HeLa whole cell lysate: sc-2200.

DATA





Centaurin γ 3 (M-18): sc-47832. Western blot analysis of Centaurin γ 3 expression in non-transfected: sc-117752 (**A**) and human Centaurin γ 3 transfected: sc-177048 (**B**) 293T whole cell lysates.

Centaurin γ 3 (M-18): sc-47832. Western blot analysis of Centaurin γ 3 expression in non-transfected 2931: sc-117752 (**A**), mouse Centaurin γ 3 transfected 2937: sc-119171 (**B**) and HeLa (**C**) whole cell lysates.

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.

