

Centaurin β 5 (S-14): sc-160232

BACKGROUND

ADP-ribosylation factor (ARF) family of small GTP-binding proteins are involved in vesicular transport regulation and controlling cytoskeletal organization and cell adhesion. These proteins are best characterized as regulators of membrane trafficking. 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. Centaurin β 5, also known as ACAP3 (Arf-GAP with coiled-coil, ANK repeat and PH domain-containing protein 3), is an 834 amino acid protein that contains 3 ANK repeats, one Arf-GAP domain and one PH domain. Predominantly expressed in the nervous system, mutations in the gene encoding Centaurin β 5 may be related to epilepsy and neurodegenerative processes. There are three isoforms of Centaurin β 5 that are produced as a result of alternative splicing events.

REFERENCES

1. Kam, J.L., et al. 2000. Phosphoinositide-dependent activation of the ADP-ribosylation factor GTPase-activating protein ASAP1. Evidence for the pleckstrin homology domain functioning as an allosteric site. *J. Biol. Chem.* 275: 9653-9663.
2. Randazzo, P.A., et al. 2004. Arf GAPs: multifunctional proteins that regulate membrane traffic and Actin remodelling. *Cell. Signal.* 16: 401-413.
3. Randazzo, P.A., et al. 2007. Arf GAPs as regulators of the Actin cytoskeleton. *Biol. Cell* 99: 583-600.
4. Moore, C.D., et al. 2007. The neuronal Arf GAP centaurin α 1 modulates dendritic differentiation. *J. Cell Sci.* 120: 2683-2693.
5. Inoue, H., et al. 2007. Arf GAPs and their interacting proteins. *Traffic* 8: 1465-1475.
6. Vashisht, A.A., et al. 2009. Centaurin-like protein Cnt5 contributes to arsenic and cadmium resistance in fission yeast. *FEMS Yeast Res.* 9: 257-269.

CHROMOSOMAL LOCATION

Genetic locus: ACAP3 (human) mapping to 1p36.33; Acap3 (mouse) mapping to 4 E2.

SOURCE

Centaurin β 5 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Centaurin β 5 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160232 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Centaurin β 5 (S-14) is recommended for detection of Centaurin β 5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Centaurin β 5 (S-14) is also recommended for detection of Centaurin β 5 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Centaurin β 5 siRNA (h): sc-88151, Centaurin β 5 siRNA (m): sc-142272, Centaurin β 5 shRNA Plasmid (h): sc-88151-SH, Centaurin β 5 shRNA Plasmid (m): sc-142272-SH, Centaurin β 5 shRNA (h) Lentiviral Particles: sc-88151-V and Centaurin β 5 shRNA (m) Lentiviral Particles: sc-142272-V.

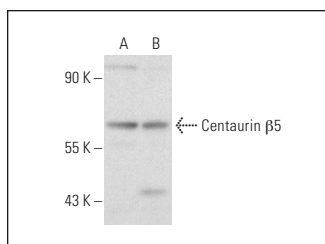
Molecular Weight of Centaurin β 5: 92 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232 or IMR-32 cell lysate: sc-2409.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Centaurin β 5 (S-14): sc-160232. Western blot analysis of Centaurin β 5 expression in IMR-32 (A) and MDA-MB-231 (B) 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.

PROTOCOLS

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