

# Centaurin $\alpha$ 1 (C-15): sc-47834

## 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. 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  $\alpha$ 1 and Centaurin  $\gamma$ 3. The Centaurin  $\alpha$ 1 protein is a high affinity PtdIns(3,4,5)P<sub>3</sub> binding protein enriched in brain. By acting as a GTPase-activating protein for ADP ribosylation factor 6 (ARF6), Centaurin  $\alpha$ 1 is able to switch off ARF6 and inhibit its ability to mediate  $\beta_2$ -adrenoceptor internalization and negatively regulate ARF6 activity by functioning as an *in vivo* PIP<sub>3</sub> dependent ARF6 GAP.

## CHROMOSOMAL LOCATION

Genetic locus: CENTA1 (human) mapping to 7p22.3; Centa1 (mouse) mapping to 5 G2.

## SOURCE

Centaurin  $\alpha$ 1 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Centaurin  $\alpha$ 1 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-47834 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

Centaurin  $\alpha$ 1 (C-15) is recommended for detection of Centaurin  $\alpha$ 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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  $\alpha$ 1 (C-15) is also recommended for detection of Centaurin  $\alpha$ 1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Centaurin  $\alpha$ 1 siRNA (h): sc-60357, Centaurin  $\alpha$ 1 siRNA (m): sc-60358, Centaurin  $\alpha$ 1 shRNA Plasmid (h): sc-60357-SH, Centaurin  $\alpha$ 1 shRNA Plasmid (m): sc-60358-SH, Centaurin  $\alpha$ 1 shRNA (h) Lentiviral Particles: sc-60357-V and Centaurin  $\alpha$ 1 shRNA (m) Lentiviral Particles: sc-60358-V.

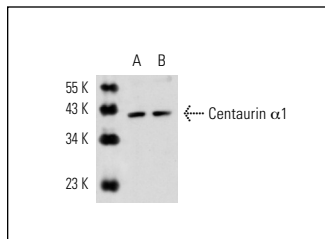
Molecular Weight of Centaurin  $\alpha$ 1: 42 kDa.

Positive Controls: mouse brain extract: sc-2253 or rat brain extract: sc-2392.

## 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  $\alpha$ 1 (C-15): sc-47834. Western blot analysis of Centaurin  $\alpha$ 1 expression in rat brain (A) and mouse brain (B) tissue extracts.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **Centaurin  $\alpha$ 1 (G-4): sc-390498** or **Centaurin  $\alpha$ 1 (31): sc-293022**, our highly recommended monoclonal alternatives to Centaurin  $\alpha$ 1 (C-15).