SANTA CRUZ BIOTECHNOLOGY, INC.

# SCYL2 (B-3): sc-515916

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

SCYL2 (SCY1-like 2), also known as CVAK104 (coated vesicle-associated kinase of 104 kDa), is a 929 amino acid protein that contains one HEAT repeat and one protein kinase domain. Localized to a variety of locations within the cell, including the perinuclear region of the cytoplasm, the *trans*-Golgi network membrane and calthrin-coated vesicles, SCYL2 exists as a component of AP2-containing Clathrin coated structures. SCYL2 is thought to function as a Ser/Thr protein kinase, exhibiting kinase activity towards adaptor complex proteins, possibly regulating Clathrin-dependent trafficking events between the golgi network and endosomes. Additionally, SCYL2 may play a role in the sorting of SNARE proteins and, ultimately, in embryonic development.

## REFERENCES


1. Hanks, S.K., et al. 1988. The protein kinase family: conserved features and deduced phylogeny of the catalytic domains. Science 241: 42-52.
2. Nagase, T., et al. 2000. Prediction of the coding sequences of unidentified human genes. XVI. The complete sequences of 150 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 7: 65-73.
3. Conner, S.D. and Schmid, S.L. 2005. CVAK104 is a novel poly-L-lysine-stimulated kinase that targets the β2-subunit of AP2. J. Biol. Chem. 280: 21539-21544.
4. Düwel, M. and Ungewickell, E.J. 2006. Clathrin-dependent association of CVAK104 with endosomes and the *trans*-Golgi network. Mol. Biol. Cell 17: 4513-4525.
5. Schmid, E.M., et al. 2006. Role of the AP2 β-appendage hub in recruiting partners for clathrin-coated vesicle assembly. PLoS Biol. 4: e262.
6. Borner, G.H., et al. 2007. CVAK104 is a novel regulator of clathrin-mediated SNARE sorting. Traffic 8: 893-903.


## CHROMOSOMAL LOCATION

Genetic locus: SCYL2 (human) mapping to 12q23.1; Scyl2 (mouse) mapping to 10 C2.

## SOURCE

SCYL2 (B-3) is a mouse monoclonal antibody raised against amino acids 309-434 mapping within an internal region of SCYL2 of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SCYL2 (B-3) is available conjugated to agarose (sc-515916 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515916 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515916 PE), fluorescein (sc-515916 FITC), Alexa Fluor® 488 (sc-515916 AF488), Alexa Fluor® 546 (sc-515916 AF546), Alexa Fluor® 594 (sc-515916 AF594) or Alexa Fluor® 647 (sc-515916 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515916 AF680) or Alexa Fluor® 790 (sc-515916 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.



## APPLICATIONS

SCYL2 (B-3) is recommended for detection of SCYL2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for SCYL2 siRNA (h): sc-95795, SCYL2 siRNA (m): sc-153279, SCYL2 shRNA Plasmid (h): sc-95795-SH, SCYL2 shRNA Plasmid (m): sc-153279-SH, SCYL2 shRNA (h) Lentiviral Particles: sc-95795-V and SCYL2 shRNA (m) Lentiviral Particles: sc-153279-V.

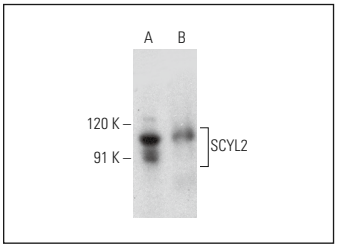
Molecular Weight of SCYL2: 104 kDa.

Positive Controls: T-47D cell lysate: sc-2293, mouse brain extract: sc-2253 or Neuro-2A whole cell lysate: sc-364185.

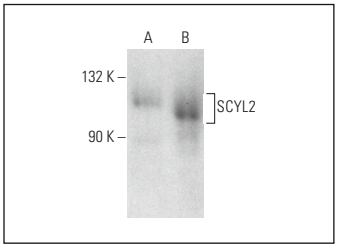
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA




SCYL2 (B-3): sc-515916. Western blot analysis of SCYL2 expression in T-47D whole cell lysate (**A**) and mouse brain tissue extract (**B**).




SCYL2 (B-3): sc-515916. Western blot analysis of SCYL2 expression in Neuro-2A (**A**) and C6 (**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.

## 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.