

# CAP (E-20): sc-12296

## BACKGROUND

c-Cbl associated protein (CAP), also designated ponsin and SH3P12, interacts with c-Cbl and facilitates the tyrosine phosphorylation of c-Cbl in response to Insulin. CAP contains three adjacent Src homology-3 (SH3) domains in the carboxy terminus. It interacts with the focal adhesion kinase p125FAK and co-localizes with Actin stress fibers. CAP is expressed in 3T3-L1 adipocytes, but not in 3T3-L1 or NIH/3T3 fibroblasts. Expression of the CAP gene is stimulated by thiazolidinediones (TZDs) through activation of PPAR $\gamma$ . In addition to its interaction with c-Cbl, CAP interacts with Sos through the same SH3 domain, and may facilitate protein-protein associations involved in cell structural changes.

## REFERENCES

- Ribon, V., et al. 1998. A novel, multifunctional c-Cbl binding protein in Insulin receptor signaling in 2T3-L1 adipocytes. *Mol. Cell. Biol.* 18: 872-879.
- Ribon, V., et al. 1998. A role for CAP, a novel, multifunctional Src homology 3 domain-containing protein in formation of actin stress fibers and focal adhesions. *J. Biol. Chem.* 273: 4073-4080.
- Ribon, V., et al. 1998. Thiazolidinediones and Insulin resistance: peroxisome proliferator activated receptor gamma activation stimulates expression of the CAP gene. *Proc. Natl. Acad. Sci. USA* 95: 14751-14756.
- Kurakin, A., et al. 1998. Molecular recognition properties of the C-terminal Sh3 domain of the Cbl associated protein, Cap. *J. Pept. Res.* 52: 331-337.

## CHROMOSOMAL LOCATION

Genetic locus: Sorbs1 (mouse) mapping to 19 C3.

## SOURCE

CAP (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CAP of mouse 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-12296 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CAP (E-20) is recommended for detection of CAP of mouse and rat 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).

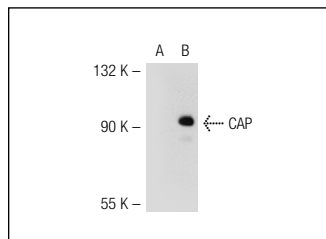
Suitable for use as control antibody for CAP siRNA (m): sc-40340, CAP shRNA Plasmid (m): sc-40340-SH and CAP shRNA (m) Lentiviral Particles: sc-40340-V.

Positive Controls: CAP (m): 293T Lysate: sc-118986.

## 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



CAP (E-20): sc-12296. Western blot analysis of CAP expression in non-transfected: sc-117752 (A) and mouse CAP transfected: sc-118986 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Zhang, M., et al. 2006. CAP interacts with cytoskeletal proteins and regulates adhesion-mediated ERK activation and motility. *EMBO J.* 25: 5284-5293.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **CAP (G-3): sc-166903**, our highly recommended monoclonal alternative to CAP (E-20).