SANTA CRUZ BIOTECHNOLOGY, INC.

# β'-COP (K-19): sc-23167

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Membrane and vesicular trafficking in the early secretory pathway are mediated by non-Clathrin COP (coat protein) I-coated vesicles. COPI-coated vesicles mediate retrograde transport from the Golgi back to the ER and intra-Golgi transport. The cytosolic precursor of the COPI coat, the heptameric coatomer complex, is composed of two subcomplexes. The first consists of the COPB, COPG, COPD and COPZ1 subunits (also known as β-COP, γ-COP, δ-COP and ζ-1 COP, respectively), which are distantly homologous to AP Clathrin adaptor subunits. The second consists of the COPA, β'-COP and COPE subunits (also known as α-COP, COPP and ε-COP, respectively).

## REFERENCES


1. Lowe, M. and Kreis, T.E. 1995. *In vitro* assembly and dissembly of coatomer. J. Biol. Chem. 270: 31364-31371.
2. De Baere, E., et al. 1998. Assignment of the cellular retinol-binding protein 1 gene (RBP1) and of the coatomer β subunit gene (COPB2) to human chromosome band 3q23 by *in situ* hybridization. Cytogenet. Cell Genet. 82: 226-227.
3. Harter, C. and Wieland, F.T. 1998. A single binding site for dilysine retrieval motifs and p23 within the γ subunit of coatomer. Proc. Natl. Acad. Sci. USA 95: 11649-11654.
4. Tarsounas, M., et al. 1999. Identification of the mouse β'-COP Golgi component as a spermatocyte autoantigen in scleroderma and mapping of its gene COPB2 to mouse chromosome 9. Cytogenet. Cell Genet. 87: 201-204.
5. Futatsumori, M., et al. 2000. Identification and characterization of novel isoforms of COPI subunits. J. Biochem. 128: 793-801.
6. Crisponi, L., et al. 2004. FOXL2 inactivation by a translocation 171 kb away: analysis of 500 kb of chromosome 3 for candidate long-range regulatory sequences. Genomics 83: 757-764.


## CHROMOSOMAL LOCATION

Genetic locus: COPB2 (human) mapping to 3q23; Copb2 (mouse) mapping to 9 E3.3.

## SOURCE

β'-COP (K-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of β'-COP of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-23167 P, (100 µg 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

β'-COP (K-19) is recommended for detection of β'-COP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

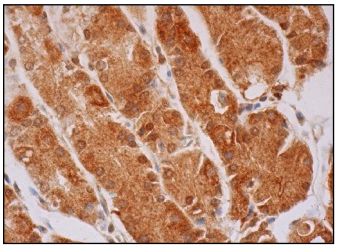
β'-COP (K-19) is also recommended for detection of β'-COP in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of β'-COP: 102 kDa.

## 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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



β'-COP (K-19): sc-23167. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic and nuclear staining of glandular cells.

## RESEARCH USE

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

## PROTOCOLS

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