BACKGROUND
Membrane and vesicular trafficking in the early secretory pathway are mediated by non-clathrin COP (coat protein) I-coated vesicles. COPB (β-COP) is a marker protein for pre-Golgi intermediates (vesicular tubular clusters or VTCs). GIV (Gαi3 interacting protein) co-localizes with COPB and Gαi3 on vesicles found in close proximity to ER exit sites and to cis-Golgi cisternae. Afadin DIL-domain-interacting protein (ADIP) co-localizes with β'-COP (COPP) at the Golgi complex in Madin Darby canine kidney and normal rat kidney cells. Non-clathrin-coated vesicles mediate membrane traffic through the Golgi complex. COPB is a major component of the coat of non-clathrin-coated vesicles.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: COPB1 (human) mapping to 11p15.2; Copb1 (mouse) mapping to 7 F1.

SOURCE
COPB (D-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-19 at the N-terminus of COPB of rat origin.

PRODUCT
Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Blocking peptide available for competition studies, sc-393615 P; (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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

APPLICATIONS
COPB (D-10) is recommended for detection of COPB 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:150) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

COPB (D-10) is also recommended for detection of COPB in additional species, including equine, canine, bovine, porcine and avian. Suitable for use as control antibody for COPB siRNA (h): sc-41196, COPB siRNA (m): sc-41197, COPB shRNA Plasmid (h): sc-41196-SH, COPB shRNA Plasmid (m): sc-41197-SH, COPB shRNA (h) Lentiviral Particles: sc-41196-V and COPB shRNA (m) Lentiviral Particles: sc-41197-V.

Molecular Weight of COPB: 110 kDa.

Positive Controls: C6 whole cell lysate: sc-364373 or Hep G2 cell lysate: sc-2227.

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended:

DATA

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