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Product datasheet

Anti-beta COP antibody ab2899

★★★★★ 15 Abreviews 41 References 画像数 5

製品の概要

製品名	Anti-beta COP antibody
製品の詳細	Rabbit polyclonal to beta COP
由来種	Rabbit
アプリケーション	**適用あり:** IP, WB, ICC/IF
種交差性	**交差種:** Mouse, Rat, Hamster, Cow, Human, Non human primates **交差が予測される動物種:** Chicken, Pig
免疫原	Synthetic peptide corresponding to Rat beta COP aa 496-513. Sequence: EAGELKPEEEITVGPVQK Run BLAST with Run BLAST with
ポジティブ・コントロール	ICC/IF: L6 and NIH/3T3 cells; Rat brain homogenate. WB: HeLa, NIH/3T3, PC-3, C2C12, HCT116 and COLO 205 cell lysates; Mouse brain tissue lysate.
特記事項	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 99% PBS
精製度	Ammonium Sulphate Precipitation
一次抗体 備考	Coatomer proteins are involved in regulating transport between the endoplasmic reticulum (ER) and the Golgi complex and in intra-Golgi transport. There exist two coatomer-protein mechanisms (COP I and COP II) and although they have mechanistic parallels, they are molecularly distinct.

The COP I coat is comprised of seven subunits (alpha-, beta-, beta'-, gamma-, delta-, epsilon-, and zeta-COP) in a complex called coatomer. Assembly of the coatomer (COP I) onto non-clathrin coated vesicles is regulated by ADP-ribosylation factor (ARF). Vesicle formation, budding, fusion, and disassembly is dependent on GDP-GTP exchange, COP I, and ARF. COP I has been shown to facilitate retrograde intracellular transport from the ER to the Golgi complex. By contrast, COP II facilitates anterograde transport between these subcellular organelles. COP II has been shown to be independently and selectively recruited to the ER relative to COP I subunits.

ポリ/モノ ポリクローナル

アイソタイプ IgG

アプリケーション

The Abpromise guarantee Abpromise保証は、次のテスト済みアプリケーションにおけるab2899の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
IP	★★★★★ (1)	Use at an assay dependent concentration. PubMed: 18556652
WB	★★★★★ (8)	1/1000. Detects a band of approximately 110 kDa.
ICC/IF	★★★★★ (6)	1/2000. Golgi localization of beta-COP is sensitive to treatment with brefeldin A or ATP depletion.

ターゲット情報

機能 The coatomer is a cytosolic protein complex that binds to dilysine motifs and reversibly associates with Golgi non-clathrin-coated vesicles, which further mediate biosynthetic protein transport from the ER, via the Golgi up to the trans Golgi network. Coatomer complex is required for budding from Golgi membranes, and is essential for the retrograde Golgi-to-ER transport of dilysine-tagged proteins. In mammals, the coatomer can only be recruited by membranes associated to ADP-ribosylation factors (ARFs), which are small GTP-binding proteins; the complex also influences the Golgi structural integrity, as well as the processing, activity, and endocytic recycling of LDL receptors. Plays a functional role in facilitating the transport of kappa-type opioid receptor mRNAs into axons and enhances translation of these proteins. Required for limiting lipid storage in lipid droplets. Involved in lipid homeostasis by regulating the presence of perilipin family members PLIN2 and PLIN3 at the lipid droplet surface and promoting the association of adipocyte surface triglyceride lipase (PNPLA2) with the lipid droplet to mediate lipolysis (By similarity). Involved in the Golgi disassembly and reassembly processes during cell cycle. Involved in autophagy by playing a role in early endosome function. Plays a role in organellar compartmentalization of secretory compartments including endoplasmic reticulum (ER)-Golgi intermediate compartment (ERGIC), Golgi, trans-Golgi network (TGN) and recycling endosomes, and in biosynthetic transport of CAV1. Promotes degradation of Nef cellular targets CD4 and MHC class I antigens by facilitating their trafficking to degradative compartments.

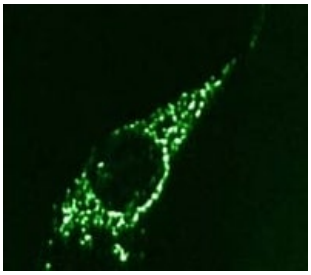
配列類似性 Contains 6 HEAT repeats.

翻訳後修飾 Proteolytically cleaved between Ser-528 and Ser-529 by CAPN8.

細胞内局在 Cytoplasm. Golgi apparatus membrane. Cytoplasmic vesicle > COPI-coated vesicle membrane.

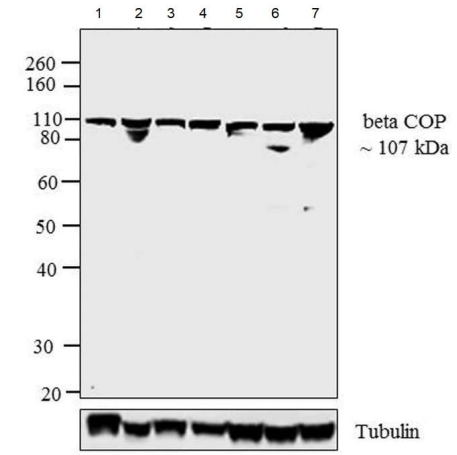
Cell membrane. Endoplasmic reticulum-Golgi intermediate compartment. The coatomer is cytoplasmic or polymerized on the cytoplasmic side of the Golgi, as well as on the vesicles/buds originating from it. Proteolytic cleavage by CAPN8 triggers translocation from Golgi to cytoplasm (By similarity). Found in perinuclear vesicular-tubular clusters (VTCs) and in the Golgi region where associated with vesicles, buds and rims of the Golgi stack (By similarity). Occasionally present at the trans-side of Golgi, but mainly present at the cis-Golgi side in transitional areas (TA), on so-called peripheral elements (PE) consisting of tubules and vesicles located between the cup-shaped transitional elements (TE) of the rough endoplasmic reticulum (RER) and the cis-most Golgi cisternae (By similarity). Present in cytoplasm, not associated with visible coats or membranes, with a minor fraction present on small clusters of tubules and vesicles (By similarity). Some association with high-density and low-density microsomes and mitochondria/nuclei fraction (By similarity). Very little found in plasma membrane fraction.

画像



Immunocytochemistry/ Immunofluorescence - Anti-beta COP antibody (ab2899)

Immunolocalization of beta COP in NIH-3T3 cells using ab2899



Western blot - Anti-beta COP antibody (ab2899)

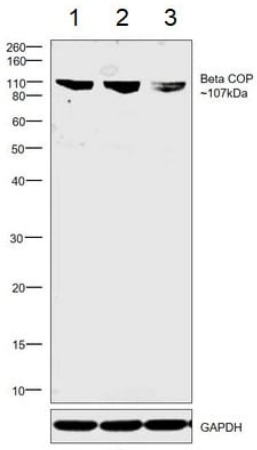
All lanes : Anti-beta COP antibody (ab2899) at 2 µg/ml

Lane 1 : Mouse brain tissue lysate
Lane 2 : NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate
Lane 3 : PC-3 (Human prostate adenocarcinoma cell line) whole cell lysate
Lane 4 : C2C12 (Mouse myoblast cell line) whole cell lysate
Lane 5 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 6 : HCT116 (Human colorectal carcinoma cell line) whole cell lysate
Lane 7 : COLO 205 (Human colon adenocarcinoma cell line) whole cell lysate

Lysates/proteins at 30 µg per lane.

Western blot analysis was performed on membrane enriched extracts (30 µg) of cells. The blots were probed with ab2899 (2

µg/mL) and detected by chemiluminescence using Goat anti-Rabbit IgG (H+L) Superclonal™ Secondary Antibody, HRP conjugate. A ~107 kDa band corresponding beta COP was observed across tissue and cell lines tested. Known quantity of protein samples were electrophoresed using Novex® NuPAGE®4-12 % Bis-Tris gel, XCell SureLock™ Electrophoresis System and Novex® Sharp Pre-Stained Protein Standard. Resolved proteins were then transferred onto a nitrocellulose membrane by Pierce™ Power Blotter System. The membrane was probed with the relevant primary and secondary Antibody using iBind™ Flex Western Starter Kit. Chemiluminescent detection was performed using Pierce™ ECL Western Blotting Substrate.

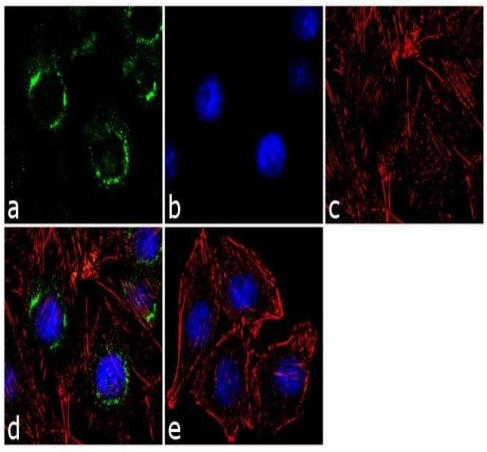


Western blot - Anti-beta COP antibody (ab2899)

All lanes : Anti-beta COP antibody (ab2899) at 2 µg/ml

Lane 1 : Untransfected HeLa cell lysate
Lane 2 : HeLa (transfected with non-targeting scrambled siRNA) cell lysate
Lane 3 : HeLa (transfected with beta COP specific siRNAs) cell lysate

Knockdown of beta COP was achieved by transfecting HeLa with beta COP specific siRNAs. Western blot analysis was performed using Membrane Enriched extracts from the beta COP knockdown cells (lane 3), non-targeting scrambled siRNA transfected cells (lane 2) and untransfected cells (lane 1). The blot was probed with ab2899 at 2ug/ml and Goat anti-Rabbit IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (1:4000 dilution).



Immunocytochemistry/ Immunofluorescence - Anti-beta COP antibody (ab2899)

Immunofluorescent analysis of beta COP was performed using 70% confluent log phase L6 (Rat skeletal muscle cell line) cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, and blocked with 1% BSA for 1 hour at room temperature. The cells were labeled with ab2899 at 2 µg/mL in 0.1% BSA and incubated for 3 hours at room temperature and then labeled with Goat anti-Rabbit IgG (H+L) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI. F-actin (Panel c: red) was stained with Alexa Fluor® 555 Rhodamine Phalloidin. Panel d represents the merged image showing cytoplasmic localization. Panel e shows the no primary antibody control. The

images were captured at 60X magnification.

Western blot - Anti-beta COP antibody (ab2899)

Western blot of beta-COP on rat brain homogenate using ab2899.

Western blot of beta-COP on rat brain homogenate using ab2899.

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