

Technical Data Sheet

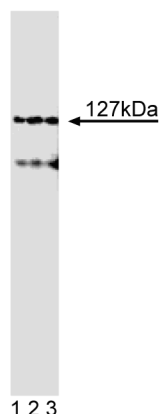
Purified Mouse Anti-Adaptin ϵ

Product Information

Material Number:	612019
Size:	150 μ g
Concentration:	250 μ g/ml
Clone:	32/Adaptin ϵ
Immunogen:	Human Adaptin ϵ aa. 685-793
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Target MW:	127 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and $\leq 0.09\%$ sodium azide.

Description

Sorting of integral membrane proteins is mediated by vesicular trafficking between a variety of organelles. Two sorting signals are tyrosine-based and dileucine-based signals that interact with heterotetrameric adaptor protein complexes (AP-1, AP-2, AP-3, and AP-4), which are associated with the vesicle coats. These coatomers contain two large adaptin proteins (γ , α , σ , ϵ and $\beta 1$, $\beta 2$, $\beta 3$, $\beta 4$ respectively) that are noncovalently linked to one medium chain ($\mu 1$, $\mu 2$, $\mu 3$, $\mu 4$ respectively) and one small chain ($\sigma 1$, $\sigma 2$, $\sigma 3$, $\sigma 4$ respectively). The AP-1 and AP-3 complexes are involved in protein sorting from the TGN and endosomes, while AP-2 adaptor complexes are involved in clathrin-mediated endocytosis. AP-4 is associated with non-clathrin coated vesicles in the region of the TGN. This localization is disrupted by brefeldin A, indicating that AP-4 membrane attachment is regulated by small GTPases. The $\mu 4$ subunit of the AP-4 complex interacts with tyrosine-based signals on LAMP-2 during targeting to the endosomal-lysosomal system. Thus, AP-4 is a less abundant AP complex that may be important for vesicle trafficking from the Golgi to the endosomal-lysosomal system.



Western blot analysis of Adaptin ϵ on SK-MEL5 lysate.
Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of anti-Adaptin ϵ .

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20°C .

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Not Recommended

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml.

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

- Aguilar RC, Boehm M, Gorshkova I. Signal-binding specificity of the mu4 subunit of the adaptor protein complex AP-4. *J Biol Chem.* 2001; 276(16):13145-13152. (Biology)
- Dell'Angelica EC, Mullins C, Bonifacino JS. AP-4, a novel protein complex related to clathrin adaptors. *J Biol Chem.* 1999; 274(11):7278-7285.(Biology)
- Hirst J, Bright NA, Rous B, Robinson MS. Characterization of a fourth adaptor-related protein complex. *Mol Biol Cell.* 1999; 10(8):2787-2802.(Biology)