

Technical Data Sheet

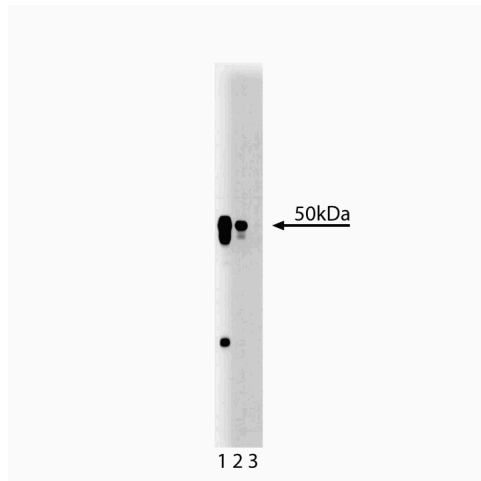
Purified Mouse Anti-AP50

Product Information

Material Number:	611351
Size:	150 µg
Concentration:	250 µg/ml
Clone:	31/AP50
Immunogen:	Mouse AP50/µ2 aa. 110-230
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Mouse, Human
Target MW:	50 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Sorting of integral membrane proteins is mediated 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 , δ , ϵ , and β 1, β 2, β 3, β 4 respectively) that are noncovalently linked to one medium chain (μ 1, μ 2, μ 3, μ 4 respectively) and one small chain (σ 1, σ 2, σ 3, σ 4 respectively). The AP-1 and AP-3 complexes are involved in protein sorting from the TGN and endosomes, while AP-2, μ 2 (AP50) interacts with integral membrane proteins *via* binding to tyrosine-based signals with the canonical motif YXX Φ . In addition, AP50/ μ 2 is required for both the assembly and the proton transport activity of vacuolar (H⁺)-ATPases in clathrin coated vesicles. Thus, AP50/ μ 2 may be involved in targeting integral membrane proteins that are sorted based on tyrosine-based signals and involved in assembly of functional ion channels associated with clathrin coated vesicles.



Western blot analysis of AP50 on a rat cerebrum lysate.
Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-AP50 antibody.

Preparation and Storage

Store undiluted at -20°C.

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

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/support/resources/cell_biology/index.jsp

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
611463	Rat Cerebrum Lysate	500 µg	(none)
611447	A431 Cell Lysate	500 µg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/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

Ohno H, Stewart J, Fournier MC et al. Interaction of tyrosine-based sorting signals with clathrin-associated proteins. *Science*. 1995; 269(5232):1872-1875. (Biology)

Vecchi M, Polo S, Poupon V, van de Loo JW, Benmerah A, Di Fiore PP. Nucleocytoplasmic shuttling of endocytic proteins. *J Cell Biol*. 2001; 153(7):1511-1517. (Clone-specific: Immunofluorescence)

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