Technical Data Sheet

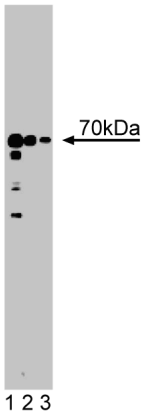
Purified Mouse Anti-Human Aralar

Product Information

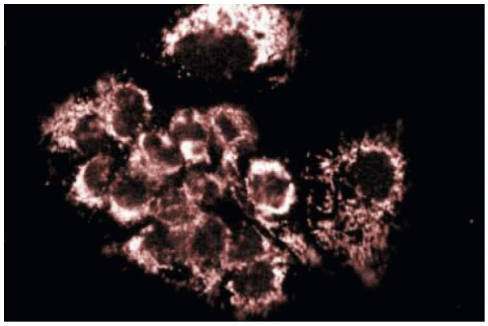
Material Number:	**611162**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	8/Aralar
Immunogen:	Human Aralar aa. 1-119
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Target MW:	70 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Mitochondria are the primary sites of ATP production within the cell. They contain two different membranes, the outer membrane and the inner membrane. The outer membrane contains porins which form pores in the membrane and render it highly permeable. The inner membrane is less permeable and contains a high protein-to-lipid ratio. This membrane contains a number of carrier proteins that mediate metabolite transport. These belong to a superfamily of related proteins that are found in *S. cerevisiae, C. elegans*, and several mammalian species. Aralar, a human member of this family, is expressed in the mitochondria within heart, skeletal muscle, and brain. Its C-terminal half resembles proteins of the mitochondrial solute carrier superfamily and its N-terminal portion contains four putative Ca2+-binding EF-hand domains. The presence of the EF-hands in Aralar make it a close relative of the large family of Ca2+-binding proteins that includes calmodulin and myosin light chain. Aralar is thought to function as a Ca2+-regulated mitochondrial anion carrier or as a Ca2+ and anion cotransporter since it is expressed primarily in tissues where cell function relies heavily on Ca2+- signaling.



Western blot analysis of Aralar on a SW-13 cell lysate (Human adrenal gland carcinoma; ATCC CCL-105).
Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1:10,000 dilution of the mouse anti-human Aralar antibody.



Immunofluorescence staining of A431 cells (Human epithelial carcinoma; ATCC CRL-1555).

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

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

Suggested Companion Products

Catalog Number	Name	Size	Clone
611475	SW-13 Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

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

del Arco A, Satrústegui J. Molecular cloning of Aralar, a new member of the mitochondrial carrier superfamily that binds calcium and is present in human muscle and brain. *J Biol Chem.* 1998; 273(36):23327-23334.(Biology)