Technical Data Sheet

Purified Mouse Anti-DLP1

Product Information

Material Number: Alternate Name: Size: Concentration: Clone: Immunogen: Isotype: Reactivity:

Target MW: Storage Buffer:

611113

Dynamin Like Protein-1; DVLP 150 μg 250 μg/ml 8/DLP1 Rat DLP1 aa. 601-722 Mouse IgG1 QC Testing: Rat Tested in Development: Mouse, Human, Dog 79-84 kDa Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Dynamins, phosphoproteins with intrinsic GTPase activities, play an important role during early endocytosis. The GTPase activity is stimulated in vitro by microtubules, SH3 domain containing-proteins, and Protein Kinase (PKC)- mediated phosphorylation. Although highly related, dynamins are differentially expressed in an organism. For instance, dynamin I is found only in the nervous system, dynamin II is ubiquitously expressed, and dynamin III is located in lung, testis and brain. Due to four alternative splicing products for each of the dynamins, the dynamin family contains at least 12 different members. The Dynamin Like Protein-1 (DLP1) is a new member of the dynamin family of proteins. DLP1 (also known as DVLP) is widely expressed as two alternatively spliced products, each with different tissue expression patterns. The larger product is about 84 kDa and reportedly found only in the brain, whereas the 79 kDa product is ubiquitously expressed. Unlike dynamins I-III which co-localize with endocytotic vesicles, DLP1 is found aligned with microtubules and with the endoplasmic reticulum, suggesting a secretory function for this novel protein.





Western blot analysis of DLP1 on a rat cerebrum lysate. 1 µg/mL (lane 1), 0.5 µg/mL (lane 2) and 0.25 µg/mL (lane 3) of the mouse anti-DLP1 antibody. Immunofluorescence staining of human endothelial cells.

Preparation and Storage

Store undiluted at -20°C.

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

BD Biosciences

bdbiosciences.com								
United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean			
877.232.8995	888.268.5430	32.53.720.550	0120.8555.90	65.6861.0633	0800.771.7157			
For country-specific contact information, visit bdbiosciences.com/how_to_order/								
Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to result or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited. For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale. BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2011 BD								



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
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal
611463	Rat Cerebrum Lysate	500 µg	(none)

Product Notices

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
- 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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Bossya B, Bossy-Wetzela E, Petrillia A, et al. S-Nitrosylation of DRP1 Does Not Affect

Enzymatic Activity and is Not Specific to

Alzheimer's Disease. 2010; 20:S513-S526. (Biology: Western blot) Duvezin-Caubet S, Reichert AS, Jagasia R, et al. Proteolytic processing of OPA1 links mitochondrial dysfunction to alterations in mitochondrial morphology. J Biol

Chem. 2006; 281(49):37972-37979. (Biology: Western blot) Estaquier J, Arnoult D. Inhibiting Drp1-mediated mitochondrial fission selectively prevents the release of cytochrome c during apoptosis. Cell Death Differ. 2007; 14(6):1086-1094. (Biology: Western blot)

Jofuku A, Ishihara N, Mihara K. Analysis of functional domains of rat mitochondrial Fis1, the mitochondrial fission-stimulating protein. Biochem Biophys Res Commun. 2005; 333(2):650-659. (Biology: Western blot)

Karbowski M, Neutzner A, Youle RJ. The mitochondrial E3 ubiquitin ligase MARCH5 is required for Drp1 dependent mitochondrial division. J Cell Biol. 2007;

178(1):71-84. (Biology: Immunofluorescence, Western blot) Yoon Y, Pitts KR, Dahan S, McNiven MA. A novel dynamin-like protein associates with cytoplasmic vesicles and tubules of the endoplasmic reticulum in mammalian cells. J Cell Biol. 1998; 140(4):779-793. (Biology)