Technical Data Sheet

Purified Mouse Anti- ARF-3

Product Information

610784 **Material Number:**

ADP Ribosylation Factor-3 Alternate Name:

50 μg Size: 250 μg/ml **Concentration:** 41/ARF3 Clone:

Human ARF3 aa. 1-181 Immunogen:

Mouse IgG1 Isotype: QC Testing: Rat Reactivity:

Tested in Development: Human, Mouse, Chicken, Dog, Frog

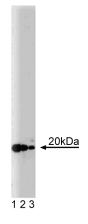
Target MW:

Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium

azide.

Description

The ADP-ribosylation factors (ARFs) belong to the multigene family of small GTPases capable of activating cholera toxin. ARFs fall into three different classes: Class I is composed of ARF-1, ARF-2, and ARF-3; Class II consists of ARF-4 and ARF-5; and Class III includes ARF6. Unique to ARFs is their lack of intrinsic GTP hydrolysis activity, a high affinity for GDP in a Mg2+-dependent manner, and phospholipid requirement for nucleotide exchange. ARFs are involved in intravesicular acidification of microsomal vesicles, endosome fusion, nuclear membrane assembly, and formation of clathrin-coated vesicles. In addition, GTP and ARF-3 are required for the activation of phospholipase D (PLD), an early cellular response triggered by the binding of receptors on the cell surface in response to numerous extracellular signals. Although predominantly cytosolic, ARF-3 can be translocated to cellular membranes upon cellular stimulation. The transition between the GDP-bound ARF-3 to the GTP-ARF-3 is facilitated by a high molecular weight guanine nucleotide-exchange factor sensitive to brefeldin. ARF-3 has been reported to be the most abundant in brain, kidney, and liver.



Western blot analysis of ARF-3 on a rat cerebrum lysate. Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the mouse anti- ARF-3 antibody.

Preparation and Storage

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

BD Biosciences

www.bdbiosciences.com

United States Canada Europe Asia Pacific 32.53.720.550 0120.8555.90 877.232.8995 888.259.0187 65.6861.0633 55.11.5185.9995 For country-specific contact information, visit www.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 Conditions: The information disclosed nerein 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 resell 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. @2007 BD



Application Notes

Application

Western blot	Routinely Tested
Immunoprecipitation	Not Recommended
Immunofluorescence	Not Recommended
Immunohistochemistry	Not Recommended

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	
611463	Rat Cerebrum Lysate	500 μg	(none)	
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)	

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.
- 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

Cockcroft S, Thomas GM, Fensome A, et al. Phospholipase D: a downstream effector of ARF in granulocytes. *Science*. 1994; 263(5146):523-526.(Biology) Kahn R, Radding CM. Separation of the presynaptic and synaptic phases of homologous pairing promoted by recA protein. *J Biol Chem*. 1984; 259(12):6228-6234.(Biology)

Lee CM, Stevens LA, Hsu HC, et al. Expression in human endothelial cells of ADP-ribosylation factors, 20-kDa guanine nucleotide-binding proteins involved in the initiation of vesicular transport. *J Mol Cell Cardiol*. 1996; 28(9):1911-1920.(Biology)

Morinaga N, Tsai SC, Moss J, Vaughan M. Isolation of a brefeldin A-inhibited guanine nucleotide-exchange protein for ADP ribosylation factor (ARF) 1 and ARF3 that contains a Sec7-like domain. *Proc Natl Acad Sci U S A.* 1996; 93(23):12856-12860.(Biology)

Moss J, Vaughan M. ADP-ribosylation factors, 20,000 M(r) guanine nucleotide-binding protein activators of cholera toxin and components of intracellular vesicular transport systems. *Cell Signal*. 1993; 5(4):367-379.(Biology)

610784 Rev. 1 Page 2 of 2