

## Technical Data Sheet

## Purified Mouse Anti-Mint1

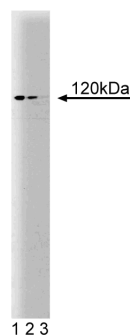
## Product Information

<b>Material Number:</b>	<b>611028</b>
<b>Size:</b>	50 µg
<b>Concentration:</b>	250 µg/ml
<b>Clone:</b>	23/Mint1
<b>Immunogen:</b>	Rat Mint 1 aa. 268-377
<b>Isotype:</b>	Mouse IgG1
<b>Reactivity:</b>	QC Testing: Rat Tested in Development: Mouse
<b>Target MW:</b>	120 kDa
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

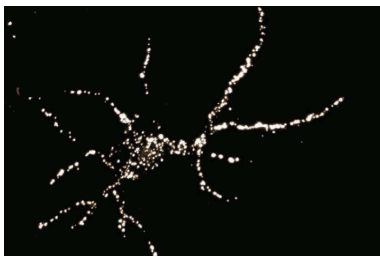
## Description

Neuronal communication via neurotransmitter release is mediated by the synaptic vesicle cycle. The initial step in exocytosis is the docking of the vesicle in the active zone of the plasma membrane. This step is followed by fusion of the vesicle and plasma membrane and exocytosis. Munc18-1, a major brain protein, is essential for exocytosis. It binds the vesicle fusion protein syntaxin, along with Doc2a and 2b, two proteins that associate peripherally with the synaptic vesicle. Munc18-1 is a family member of membrane trafficking proteins. Its function is thought to be mediated by two Munc18-1-interacting proteins termed Mint 1 and Mint 2, which are 50% homologous. They are expressed exclusively in brain and bind Munc18-1 (MID) with high affinity. They contain an N-terminal Munc18-1 interacting domain and C-terminal PTB (pTyr/PIP interaction) and PDZ (membrane protein interaction) domains, suggesting the ability of Mint proteins to link vesicle exocytosis to Tyr phosphorylation and/or localization at synaptic intercellular junctions. Thus, the Mint proteins, along with Munc18-1 and syntaxin, form a multimeric complex that mediates appropriate docking/fusion of synaptic vesicles.

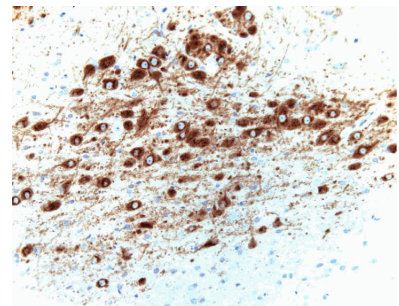
This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



**Western blot analysis of Mint1 on a rat cerebrum lysate.** Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-Mint1 antibody.



**Immunofluorescence staining of rat neurons.**



**Immunohistochemical staining of a formalin-fixed, paraffin embedded rat cerebrum tissue section, with citrate pre-treatment (20X magnification).**

## 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](http://www.bdbiosciences.com)

<b>United States</b>	<b>Canada</b>	<b>Europe</b>	<b>Japan</b>	<b>Asia Pacific</b>	<b>Latin America/Caribbean</b>
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit [www.bdbiosciences.com/how\\_to\\_order/](http://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 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
Immunofluorescence	Tested During Development
Immunohistochemistry	Tested During Development

### Recommended Assay Procedure:

**Western blot:** Please refer to [http://www.bdbiosciences.com/pharming/en/protocols/Western\\_Blotting.shtml](http://www.bdbiosciences.com/pharming/en/protocols/Western_Blotting.shtml)

### Suggested Companion Products

Catalog Number	Name	Size	Clone
611463	Rat Cerebrum Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Igs (Multiple Adsorption)	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/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.

### References

- Biederer T, Sudhof TC. Mints as adaptors. Direct binding to neuroligins and recruitment of munc18. *J Biol Chem.* 2000; 275(51):39803-39806.(Biology: Immunofluorescence, Western blot)
- Fisher RJ, Pevsner J, Burgoyne RD. Control of fusion pore dynamics during exocytosis by Munc18. *Science.* 2001; 291(5505):875-878.(Biology: Immunoprecipitation)
- Okamoto M, Sudhof TC. Mints, Munc18-interacting proteins in synaptic vesicle exocytosis. *J Biol Chem.* 1997; 272(50):31459-31464.(Biology)
- Wong RW, Setou M, Teng J, Takei Y, Hirokawa N. Overexpression of motor protein KIF17 enhances spatial and working memory in transgenic mice. *Proc Natl Acad Sci U S A.* 2002; 99(22):14500-14505.(Biology: Western blot)

## BD Biosciences

[www.bdbiosciences.com](http://www.bdbiosciences.com)

United States 877.232.8995   Canada 888.259.0187   Europe 32.53.720.550   Japan 0120.8555.90   Asia Pacific 65.6861.0633   Latin America/Caribbean 55.11.5185.9995

For country-specific contact information, visit [www.bdbiosciences.com/how\\_to\\_order/](http://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 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

