

## Datasheet: VMA00942

<b>Description:</b>	MOUSE ANTI VESICLE-FUSING ATPase
<b>Specificity:</b>	VESICLE-FUSING ATPase
<b>Format:</b>	Purified
<b>Product Type:</b>	PrecisionAb Monoclonal
<b>Clone:</b>	CD01/1F3
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	100 µl

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Immunoprecipitation	▪			
Western Blotting	▪			1/2000

**The PrecisionAb label is reserved for antibodies that meet the defined performance criteria within Bio-Rad's ongoing antibody validation programme. Click [here](#) to learn how we validate our PrecisionAb range.** Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Further optimization may be required dependent on sample type.

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	Reacts with: Mouse, Rat <b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.
<b>Product Form</b>	Purified IgG - Liquid
<b>Preparation</b>	Mouse monoclonal antibody affinity purified on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	0.09% Sodium Azide

## Stabilisers

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**Approx. Protein Concentrations** IgG concentration 1.0 mg/ml

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**Immunogen** *E. coli*-derived recombinant protein of amino acids 500-744 of human vesicle-fusing ATPase

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## External Database Links

**UniProt:**  
[P46459](#)    [Related reagents](#)

**Entrez Gene:**  
[4905](#)    NSF    [Related reagents](#)

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**Fusion Partners** Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line

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**Specificity** **Mouse anti Vesicle-fusing ATPase antibody** recognizes vesicle-fusing ATPase, also known as NEM-sensitive fusion protein (NSF). Vesicle-fusing ATPase is an ATPase that plays a role in vesicular traffic by associating with SNAP and the membrane-fusing SNARE proteins, forming the 20S complex important for membrane trafficking ([Nishizaki et al. 2016](#)). Vesicle-fusing ATPase in combination with SNAPs is able to disassemble the SNARE complex, leading to release of neurotransmitters and facilitating other membrane trafficking processes ([Choi et al. 2018](#)). In addition, vesicle-fusing ATPase is responsible for regenerating active SNAREs after fusion, ready for the next round of fusion. In neurons, inactivation of vesicle-fusing ATPase results in a huge buildup of Golgi fragments, transport vesicles, and late endosomes, followed by delayed neuronal death ([Yuan et al. 2019](#)). Defects in membrane trafficking have been reported in a range of human diseases including cancer, diabetes, neurodegenerative disorders, ciliopathies, and infections ([Yoon et al. 2018](#)).

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**Western Blotting** Mouse anti vesicle-fusing ATPase detects a band of approximately 80 kDa in Jurkat cell lysates

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**Storage** Store undiluted at -20°C, avoiding repeated freeze thaw cycles

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**Guarantee** 12 months from date of despatch

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**Acknowledgements** PrecisionAb is a trademark of Bio-Rad Laboratories

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/VMA00942> Antibody (10040)

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**Regulatory** For research purposes only

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## Related Products

## Recommended Secondary Antibodies

Goat Anti Mouse IgG (H/L) (STAR207...) [HRP](#)

## Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)

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