Purified Mouse Anti-VAP33

Material Number: 612180
Alternate Name: VAP-A
Size: 50 µg
Concentration: 250 µg/ml
Clone: 8/VAP33
Immunogen: Mouse VAP33 aa. 119-226
Isotype: Mouse IgM
Reactivity: QC Testing: Mouse
Tested in Development: Human, Rat, Dog
Target MW: 33 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description
In eukaryotic cells, trafficking of membrane and secretory proteins requires an elaborate system of organelles, vesicles, and cytoskeletal structures. Proteins important for protein trafficking usually interact with one or all of these cellular structures. VAP33 (VAP-A) was identified through its ability to bind the synaptic vesicle protein synaptobrevin/VAMP-1. The structure of VAP33 includes an N-terminal domain similar to the major sperm protein from Ascaris lubricoides, a central coiled-coil domain, and a C-terminal transmembrane region. VAP33 mRNA is expressed at high levels in testis, but is also found in most other tissues. In rat neurons, VAP33 localizes to the ER and microtubules, while in many cells and tissues, VAP33 co-localizes to tight junctions along with occludin. Interestingly, 83% of VAP33 fractionates with occludin and DPPIV in the plasma membrane fraction, while only 14% fractionates in the vesicular pool. In L6 skeletal myoblasts, VAP33 colocalizes with VAMP-2, and overexpression of VAP33 attenuates insulin-dependent incorporation of GLUT4 into the plasma membrane. This effect can be suppressed by overexpression of VAMP-2. Thus, VAP33 may be involved in the trafficking of plasma membrane proteins to specific sites within the cell.

Preparation and Storage
Store undiluted at -20°C.

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

Application

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<td>Western blot</td>
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<td>Immunofluorescence</td>
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Suggested Companion Products

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<tr>
<td>554001</td>
<td>FITC Goat Anti-Mouse Ig</td>
<td>0.5 mg</td>
<td>Polyclonal</td>
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<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Ig</td>
<td>1.0 ml</td>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. 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.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
5. This antibody has been developed and certified for the bioimaging application. However, a routine bioimaging test is not performed on every lot. Researchers are encouraged to titrate the reagent for optimal performance.
6. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. Triton is a trademark of the Dow Chemical Company.

References

- Skehel PA, Fabian-Fine R, Kandel ER. Mouse VAP33 is associated with the endoplasmic reticulum and microtubules. *Proc Natl Acad Sci U S A*. 2000; 97(3):1101-1106. (Biology)