



## RayBiotech, Inc.

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### Certificate of Analysis and Data Sheet

## RAT ANTI MOUSE PLVAP

With HRP-conjugated Secondary Antibody

**Catalog No.**  
DS-MB-03957

**Species**  
Mouse

**Isotype**  
IgG2a

### Preparation

- **Preparation:** Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
- **Fusion Partners:** Spleen cells from immunized rat were fused with cells of the Sp2/0 myeloma cell line.

### Formulation

- **Product Type:** Monoclonal Antibody
- **Product Form:** Purified IgG - liquid
- **Buffer Solution:** Phosphate buffered saline, pH 7.4
- **Approx. Protein Concentration:** IgG concentration 1.0 mg/ml
- **Preservative & Stabilizers:** 0.09% Sodium Azide

### Applications

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA			•	
Western Blotting			•	
Immunohistology Frozen	•			1:25-1:100
Immunohistology - paraffin			•	
Immunohistology - resin			•	
Flow Cytometry (1)	•			
Immunofluorescence			•	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.  
(1) Use 10ul of the suggested working dilution to label  $1 \times 10^6$  cells in 100ul.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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### Secondary Antibody Applications

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blotting)	•			1:5,000-1:10,000

### Specificity

- DS-MB-03957 recognizes murine plasmalemma vesicle-associated protein (PLVAP), a 60kD protein which is otherwise known as MECA-32 and PV-1. PLVAP is a transmembrane homodimer which is associated with endothelial cell caveolae and fenestrae. In adult and embryonic mice, PLVAP is primarily expressed on endothelial tissues but shows restricted distribution in the skeletal, cardiac and brain tissues. In embryonic mice, PLVAP expression, on the vasculature associated with blood brain barrier has been reported to be developmentally regulated.
- In humans, PLVAP is selectively up-regulated in a variety of high-grade brain tumors, including glioblastoma and metastatic carcinoma, as well as other cerebral disorders associated with blood-brain barrier disruption, such as acute ischemia. PLVAP represents a novel marker of brain tumor angiogenesis and integrity of the blood-brain barrier and is a potential therapeutic target.

### Storage

- Store at +4 °C or at -20 °C if preferred.
- Storage in frost-free freezers is not recommended. This product should be stored undiluted.
- Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
- Shelf Life:** 18 months from date of shipment.

### Reference

- Hallman, R. et al. (1995) Novel mouse endothelial cell surface marker is suppressed during differentiation of the blood brain barrier. Dev Dyn.202:325 – 332.
- Carson-Walter, E.B. et al. (2005) Plasmalemmal vesicle associated Protein-1 is a novel marker implicated in brain tumor angiogenesis. Clin Cancer Res.11:7643 – 7650.

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