

# Mouse H-2Db Antibody

Purified *in vivo* PLATINUM™ Functional Grade

Hybridoma Monoclonal Antibody

## Product Information

**Product No.:** B341

**Clone:** B22/249

**Isotype:** Mouse IgG2a k

**Storage:** Sterile 2° to 8°C

## Product Description

### Specificity:

B22.249.R1 activity is directed against mouse H-2Db.

### Antigen Distribution:

H-2Db is expressed on the cell surface of lymphocytes.

### Background:

H-2, the murine major histocompatibility complex (MHC), is composed of a diverse group of antigens divided into class I and II proteins that function in immune response<sup>1</sup>. H-2Db is a class I MHC cell surface protein. MHC class I molecules bind peptides generated by the degradation of cytosolic proteins, and then display those peptides on the cell surface. Generally, these peptides are derived from normal metabolism, but they can also be derived from foreign proteins during viral infection or allotransplantation. For example, H-2Db plays a role in human papillomavirus infection<sup>2</sup>. When peptides are recognized as foreign, cytotoxic T lymphocytes specific to the MHC class I-peptide complex kill the presenting cell<sup>1</sup>.

B22-249.R1 was generated by immunizing mice with spleen cells from allogeneic mice using the combination BSLB/k anti-C57BL/6<sup>3</sup>. Spleen cells of the recipient mouse were hybridized with the P3-NS 1-Ag4 myeloma cell line and screened using cytotoxic and hemagglutination assays. B22-249.R1 is also known as H-2.m2 in the literature<sup>4</sup>.

### Known Reactivity Species:

Mouse

### Format:

Purified *in vivo* PLATINUM™ Functional Grade

### Immunogen:

Mouse H-2Db

### Formulation

This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

### Purity

≥95% by SDS Page, ≥98% monomer by analytical SEC

### Endotoxin

≤ 0.5 EU/mg as determined by the LAL method

### **Storage and Stability**

Functional grade preclinical antibodies may be stored sterile as received at 2°C to 8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at ≤ -70°C.

### **Avoid Repeated Freeze Thaw Cycles**

### **Product Preparation**

Functional grade preclinical antibodies are manufactured in an animal free facility using in vitro cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

### **Pathogen Testing**

To protect mouse colonies from infection by pathogens and to assure that experimental preclinical data is not affected by such pathogens, all of Leinco's Purified Functional PLATINUM™ antibodies are tested and guaranteed to be negative for all pathogens in the IDEXX IMPACT I Mouse Profile.

### **Other Applications Reported in Literature:**

**In vitro depletion,  
Cytotoxicity Assay,  
IP,  
FC**

### **Country of Origin**

USA

### **References**

- 1) Yoshida R. Adv Immunol. 124:207-247. 2014.
- 2) Peng S, Mattox A, Best SR, et al. Cancer Immunol Immunother. 65(3):261-271. 2016.
- 3) Hammerling GJ, Hammerling U, and Lemke HL. Immunogenetics. 8:433. 1979.
- 4) Klein J, Huang HJS, Lemke H, et al. Immunogenetics. 8:419. 1979.
- 5) Maloy WL, Hämmerling G, Nathenson SG, et al. J Immunol Methods. 37(3-4):287-299. 1980.
- 6) Maloy WL, Coligan JE. Immunogenetics. 16(1):11-22. 1982.
- 7) Melino M, Nichols E, Strausser H, et al. J Immunol. 129:222. 1982.
- 8) Shapiro LH, Dugan ES, Neiderhuber JE. J Exp Med. 162(5):1477-1493. 1985.