

RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Rat Anti-Human HLA ABC

With HRP-conjugated Secondary Antibody

Catalog No. **Target Species** Isotype DS-MB-01537 Human IgG2b

Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Immunogen: PHA activated human peripheral blood lymphocytes.

Fusion Partners: Spleen cells from immunized DA rats were fused with cells of the rat Y3 myeloma cell line.

Formulation

Product Form: Purified IgG - liquid **Product Type:** Monoclonal Antibody **Buffer Solution:** Phosphate buffered saline

Preservative Stabilizers: 0.09% Sodium Azide (NaN₃)

Approx. Protein Concentrations: IgG concentration 1.0 mg/ml

Specificity

The major histocompatibility complex (MHC) is a cluster of genes that are important in the immune response to infections. In humans, this complex is referred to as the human leukocyte antigen (HLA) region. There are 3 major MHC class I proteins encoded by the HLA which are HLA A, HLA B and HLA C. These proteins are found on the surface of almost all nucleated somatic cells.

DS-MB-01537 recognizes a monomorphic determinant on the human HLA Class I heavy chain. Epitope analysis has shown that this antibody binds in the alphal domain.

Recent studies have shown that this antibody may be able to induce apoptosis in activated but not resting T cells (1).

Species Cross Reactivity: Does not react with Mouse

Storage

Store at +4°C for one month or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. 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 dispatch.



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Applications

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Flow Cytometry (1)	•			1/50 - 1/100
Immunohistology - Frozen	•			
Immunofluorescence	•			
Immunofluorescence	•			
Western Blotting			•	
Functional Assays(2)	•			
Elisa			•	

Note: Other applications have not been tested. Optimal dilutions should be determined.

- (1) Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul. Method sheets are available on request.
- (2) This product contains sodium azide, removal by dialysis is recommended prior to use in functional assays.

Secondary Antibody Applications

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blot)	•			1:5000-1:10000

Reference

- 1. Genestier, L. *et al.* (1997) Fas-independent apoptosis of activated T cells induced by antibodies to the HLA Class I alpha1 domain. Blood 90: 3629-3639.
- 2. Genestier, L. *et al.* (1997) Antibodies to HLA Class I alpha 1 Domain Trigger Apoptosis of CD40-Activated Human B Lymphocytes. Blood.90:726-735.
- 3. Genestier, L.*et al.* (1998) Caspase-dependent Ceramide Production in Fas- and HLA Class I-mediated Peripheral T Cell Apoptosis. J. Biol. Chem. 273:5060-5066.
- 4. Liu, S. *et al.* (2005) Cross-talk between schwann cells and neuroblasts influences the biology of Neuroblastoma xenografts. Am. J. Pathol. 166:891-900.



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- 5. Schmidt, J. *et al.* (2008) Interrelation of inflammation and APP in sIBM: IL-1 beta induces accumulation of beta-amyloid in skeletal muscle. Brain 131: 1228-1240.
- 6. Muth, I.E. *et al.* (2009) Proinflammatory cell stress in sporadic inclusion body myositis muscle: overexpression of alphaB-crystallin is associated with amyloid precursor protein and accumulation of beta-amyloid. J Neurol Neurosurg Psychiatry. 80: 1344-9.
- 7. Schmidt, J. *et al.* (2004) Upregulated inducible co-stimulator (ICOS) and ICOS-ligand in inclusion body myositis muscle: significance for CD8+ T cell cytotoxicity. Brain. 127: 1182-90.