Technical Data Sheet

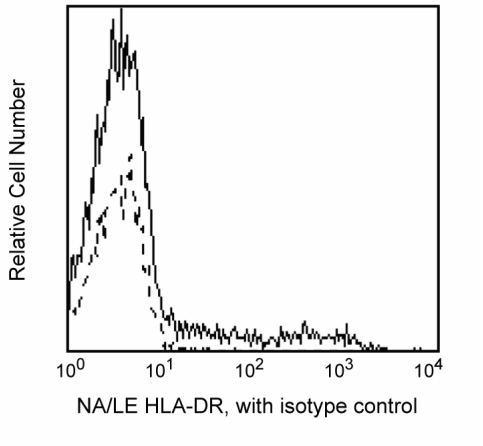
Purified NA/LE Mouse Anti-Human HLA-DR

Product Information

Material Number:	**555809**
Alternate Name:	MHC class II antigen; HLA class II histocompatibility antigen
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	G46-6
Isotype:	Mouse IgG2a, κ
Reactivity:	QC Testing: Human Tested in Development: Rhesus, Cynomolgus, Baboon Reported Reactivity: Dog
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2µm sterile filtered. Endotoxin level is ≤0.01 EU/µg (≤0.001 ng/µg) of protein as determined by the LAL assay.

Description

The G46-6 monoclonal antibody specifically binds to HLA-DR, a major histocompatibility complex (MHC) class II antigen. HLA-DR antigens are encoded by genes within the Human Leukocyte Antigen (HLA) Complex located on chromosome 6. HLA-DR is a transmembrane heterodimeric glycoprotein composed of an α chain (36 kDa) and a β subunit (27 kDa) expressed primarily on antigen presenting cells: B cells, dendritic cells, monocytes, macrophages, and thymic epithelial cells. HLA-DR is also expressed on activated T cells. This molecule plays a major role in mediating cellular interactions during antigen presentation to CD4-positive T cells.



Flow cytometric analysis of HLA-DR on human lysed whole blood. *Human whole blood was lysed with BD FACS™ Lysing Solution (Cat. No. 349202) and stained with Purified NA/LE Mouse IgG2a, κ Isotype Control (Cat. No. 554656; dashed line histogram) or with Purified NA/LE Mouse Anti-Human HLA-DR (Cat. No. 555809; solid line histogram). Secondary staining was carried out with FITC Goat Anti-Mouse IgG/IgM (Cat. No. 555988). Fluorescent histograms showing expression of HLA-DR (or Ig isotype staining) were derived from gated events based on forward and side light scattering characteristics for intact lymphocytes. Flow cytometry was performed on a BD FACScan™ system.*

Preparation and Storage

Store undiluted at 4°C.

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

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application

Flow cytometry	Routinely Tested
Functional assay	Tested During Development

Recommended Assay Procedure:

This antibody was tested during development for the mixed lymphocyte reaction (MLR). This antibody fixes complement and is able to block mixed lymphocyte reactions at an antibody concentration of 5 µl/ml.This NA/LE™ format is useful for *in vitro* functional studies.

BD Biosciences

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Suggested Companion Products

Catalog Number	Name	Size	Clone
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Polyclonal
554645	Purified NA/LE Mouse IgG2a, κ Isotype Control	0.5 mg	G155-178
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
349202	BD FACS™ Lysing Solution	100 mL	(none)
555899	Lysing Buffer	100 mL	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Barclay NA, Brown MH, Birkeland ML, et al, ed. *The Leukocyte Antigen FactsBook.* San Diego, CA: Academic Press; 1997(Biology)

Dieckmann D, Plottner H, Berchtold S, Berger T, Schuler G. Ex vivo isolation and characterization of CD4(+)CD25(+) T cells with regulatory properties from human blood. *J Exp Med.* 2001; 193(11):1303-1310. (Biology)

Herodin F, Thullier P, Garin D, Drouet M. Nonhuman primates are relevant models for research in hematology, immunology and virology. *Eur Cytokine Netw.* 2005; 16(2):104-116. (Biology)

Ibisch C, Pradal G, Bach JM, Lieubeau B. Functional canine dendritic cells can be generated in vitro from peripheral blood mononuclear cells and contain a cytoplasmic ultrastructural marker. *J Immunol Methods.* 2005; 298(1-2):175-82. (Clone-specific)

Kitani A, Chua K, Nakamura K, Strober W. Activated self-MHC-reactive T cells have the cytokine phenotype of Th3/T regulatory cell 1 T cells. *J Immunol.* 2000; 165(2):691-702. (Clone-specific)

Moran TP, Collier M, McKinnon KP, Davis NL, Johnston RE, Serody JS. A novel viral system for generating antigen-specific T cells. *J Immunol.* 2008; 175(5):3431-3438. (Clone-specific)

Pawelec G, Ziegler A, Wernet P. Dissection of human allostimulatory determinants with cloned T cells: stimulation inhibition by monoclonal antibodies TU22, 34, 35, 36, 37, 39, 43, and 58 against distinct human MHC class II molecules. *Hum Immunol.* 1985; 12(3):165-176. (Biology)

Pawelec GP, Shaw S, Ziegler A, Muller C, Wernet P. Differential inhibition of HLA-D- or SB-directed secondary lymphoproliferative responses with monoclonal antibodies detecting human Ia-like determinants. *J Immunol.* 1982; 129(3):1070-1075. (Biology)

Podolin PL, Bolognese BJ, Carpenter DC, et al. Inhibition of invariant chain processing, antigen-induced proliferative responses, and the development of collagen-induced arthritis and experimental autoimmune encephalomyelitis by a small molecule cysteine protease inhibitor. *J Immunol.* 2008; 180(12):7989-8003. (Biology)

Sorg RV, Kogler G, Wernet P. Identification of cord blood dendritic cells as an immature CD11c- population. *Blood.* 1999; 93(7):2302-2307. (Biology)

Ziegler A, Heinig J, Muller C, et al. Analysis by sequential immunoprecipitations of the specificities of the monoclonal antibodies TU22,34,35,36,37,39,43,58 and YD1/63.HLK directed against human HLA class II antigens. *Immunobiology.* 1986; 171(1-2):77-92. (Biology)

Ziegler A, Uchańska-Ziegler B, Zeuthen J, Wernet P. HLA antigen expression at the single cell level on a K562 X B cell hybrid: an analysis with monoclonal antibodies using bacterial binding assays. *Somatic Cell Genet.* 1982; 8(6):775-89. (Biology)

Zola H. *Leukocyte and stromal cell molecules : the CD markers.* Hoboken, N.J.: Wiley-Liss; 2007(Biology)