

## Anti-HLA-DR [HD8] Bulk Size Ab03367-3.0-BT

This chimeric mouse antibody was made using the variable domain sequences of the original Human IgG2 format for improved compatibility with existing reagents assays and techniques.

**Isotype and Format:** Mouse IgG2b, Kappa

**Clone Number:** HD8

**Alternative Name(s) of Target:** CD74; Beta chain HLA-DR; HLA-DR  $\beta$ -chain;  $\beta$ -chain; HLA class II histocompatibility antigen gamma chain; HLA-DR antigens-associated invariant chain; Ia antigen-associated invariant chain; Ii; p33

**UniProt Accession Number of Target Protein:** P04233

**Published Application(s):** immunotherapy, WB, FC

**Published Species Reactivity:** Human

**Immunogen:** The original antibody was generated by immunizing a human transgenic KM mice with HLA-DR-expressing L929 cells.

**Specificity:** This antibody specifically binds an epitope comprising amino acids 61-WNSQKDILEQARA-73 in the beta chain of human HLA-DR. This antibody can recognize most polymorphic forms of the human HLA-DR. This antibody can recognize 99.2% of HLA-DRB alleles and also is capable of cross reacting with HLA-DP alleles some HLA-DQ alleles. HLA-DR is an MHC class II cell surface receptor encoded by the human leukocyte antigen complex on chromosome 6 region 6p21.31. HLA-DR is also involved in several autoimmune conditions, disease susceptibility and disease resistance. The primary function of HLA-DR is to present peptide antigens, potentially foreign in origin, to the immune system for the purpose of eliciting or suppressing T-(helper)-cell responses that eventually lead to the production of antibodies against the same peptide antigen.

**Application Notes:** The binding specificity of this antibody to HLA-DR-positive B-lymphoblastoid cell line, SKW6.4 was tested using western blot. The reactivity of this antibody towards various HLA-DR positive cell lines like ARH77, Daudi, Granta519, IM-9, MC/CAR, Raji, RPMI1788, HS-Sultan, Namalwa, RL, Ramos, SKW6.4 etc. was determined using Alexa488 labelled antibody by flow cytometry. This antibody is reported to exert strong antibody dependent cellular cytotoxicity and complement-dependent cytotoxicity in vitro, and significantly extended the life span of immunocompromised mice inoculated with non-Hodgkin lymphoma cell lines. This antibody has potential applications in HLA-DR targeted immunotherapy as it is likely to evoke similarly strong responses in individuals carrying different HLA-DR alleles (PMID: 17428256). The Pro331Ser and Lys322Ala modified version of this antibody was incapable of expressing CDC in vitro

and did not induce severe infusion reactions in rats and monkeys, even at extremely high doses. This antibody still retained its Ab-dependent cellular cytotoxicity function as well as its antitumor activity in a tumor-bearing mouse model (PMID: 18250438).

**Antibody First Published in:** Tawara et al. Fully human antibody exhibits pan-human leukocyte antigen-DR recognition and high in vitro/vivo efficacy against human leukocyte antigen-DR-positive lymphomas. Cancer Sci. 2007 Jun;98(6):921-8. [PMID:17428256](#)

**Note on publication:** Describes the generation and characterization of this antibody.

## Product Form

**Size:** 1 mg Purified antibody in bulk size.

**Purification:** Protein A affinity purified

**Supplied In:** PBS only.

**Storage Recommendation:** Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20°C.

**Concentration:** 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.