

Anti-HLA-DP antibody [B7/21] ab20897

[24 References](#) [1 Image](#)

Overview

Product name	Anti-HLA-DP antibody [B7/21]
Description	Mouse monoclonal [B7/21] to HLA-DP
Host species	Mouse
Specificity	<p>The B7/21 monoclonal antibody specifically recognizes HLA-DP antigens which are human Major Histocompatibility Complex (MHC) Class II antigens. HLA-DP antigens are heterodimers comprised of two different type I transmembrane glycoproteins that are noncovalently-associated. The ~34 kDa HLA-DP alpha (HLA-DPα) and ~26-28 kDa HLA-DP beta (HLA-DPβ) chains are encoded by HLA-DPA1 and HLA-DPB1 genes, respectively, that are located within the Human Leukocyte Antigen (HLA) Complex of chromosome 6. The B7/21 antibody recognizes a monomorphic determinant present on cells expressing HLA-DP1, -DP2, -DP3, -DP4, and -DP5 and does not reportedly bind to HLA-DR or HLA-DQ Class II antigens. HLA-DP is variably expressed on B cells, monocytes, macrophages, dendritic cells (DC), activated T cells, and tumor cell lines including B cell lines, myelomas, and some myeloid leukemias. HLA-DP functions in the presentation of peptides derived from extracellular antigens to CD4+ T cells.</p>
Tested applications	Suitable for: ICC
Species reactivity	Reacts with: Human
Immunogen	The details of the immunogen for this antibody are not available.
General notes	<p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.

Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 6.97% L-Arginine
Purity	Protein A purified
Clonality	Monoclonal
Clone number	B7/21
Isotype	IgG3

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab20897 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

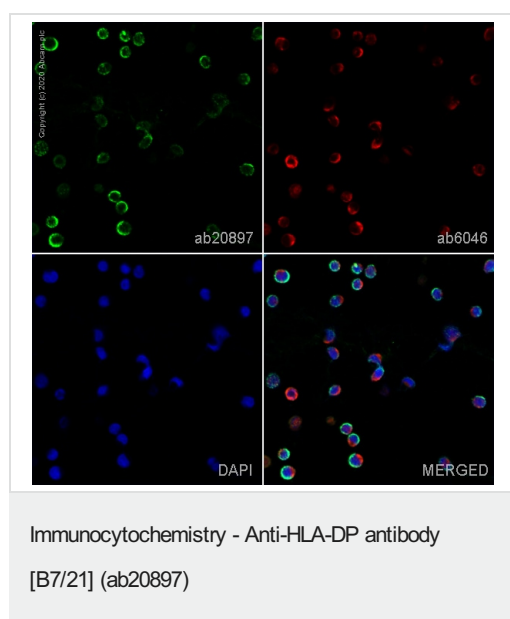
Application	Abreviews	Notes
ICC		Use a concentration of 5 µg/ml.

Target

Relevance HLA-DPA1 belongs to the HLA class II alpha chain paralogues. This class II molecule is a heterodimer consisting of an alpha (DPA) and a beta (DPB) chain, both anchored in the membrane. It plays a vital role in the immune system by presenting peptides derived from extracellular proteins. Class II molecules are expressed in antigen presenting cells (B lymphocytes, dendritic cells and macrophages). Within the DP molecule the alpha and beta chain contain the polymorphisms governing the peptide binding specificities, resulting in up to 4 different molecules.

Cellular localization Type I membrane protein; Cell Membrane, Endoplasmic reticulum and Golgi Apparatus

Images



ab20897 staining HLA-DP in RAMOS cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab20897 at 5µg/ml and **ab6046**, Rabbit polyclonal to beta Tubulin - Loading Control. Cells were then incubated with **ab150117**, Goat polyclonal Secondary Antibody to Mouse IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and **ab150080**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 594) at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a confocal microscope (Leica-

Microsystems TCS SP8) and a single confocal section is shown.

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