# HLA-DR/DP/DQ/DX (CR3/43): sc-53302

## BACKGROUND
Major histocompatibility complex (MHC) class II molecules destined for presentation to CD4+ helper T cells is determined by two key events. These events include the dissociation of class II-associated invariant chain peptides (CLIP) from an antigen binding groove in MHC II αβ dimers through the activity of MHC molecules HLA-DM and -DO, and subsequent peptide antigen binding. Accumulating in endosomal/lysosomal compartments and on the surface of B cells, HLA-DM, -DO molecules regulate the dissociation of CLIP and the subsequent binding of exogenous peptides to HLA class II molecules (HLA-DR, -DQ and -DP) by sustaining a conformation that favors peptide exchange. RFLP analysis of HLA-DM genes from rheumatoid arthritis (RA) patients suggests that certain polymorphisms are genetic factors for RA susceptibility. HLA-B belongs to the HLA class I heavy chain paralogs. Class I molecules play a central role in the immune system by presenting peptides derived from the endoplasmic reticulum lumen. HLA-B and -C can form heterodimers consisting of a membrane anchored heavy chain and a light chain (β-2-Microglobulin). Polymorphisms yield hundreds of HLA-B and -C alleles.

## SOURCE
HLA-DR/DP/DQ/DX (CR3/43) is a mouse monoclonal antibody raised against tonsil cells of human origin.

## PRODUCT
Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HLA-DR/DP/DQ/DX (CR3/43) is available conjugated to agarose (sc-53302 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53302 HRP), 200 µg/ml, for WB, (H)OP and ELISA; to either phycoerythrín (sc-53302 PE), fluorescein (sc-53302 FITC), Alexa Fluor® 488 (sc-53302 AF488), Alexa Fluor® 546 (sc-53302 AF546), Alexa Fluor® 594 (sc-53302 AF594) or Alexa Fluor® 647 (sc-53302 AF647), 200 µg/ml, for WB (RGB), IF, (H)OP and FCM; and to either Alexa Fluor® 680 (sc-53302 AF680) or Alexa Fluor® 790 (sc-53302 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS
HLA-DR/DP/DQ/DX (CR3/43) is recommended for detection of HLA-DR/DP/DQ/DX of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of HLA-DR/DP/DQ/DX: 30/29 kDa.

Positive Controls: Daudi cell lysate: sc-2415, NAMALWA cell lysate: sc-2234 or Raji whole cell lysate: sc-364236.

## STORAGE
Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE
For research use only, not for use in diagnostic procedures.

## DATA

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## SELECT PRODUCT CITATIONS

## PROTOCOLS
See our web site at www.scbt.com for detailed protocols and support products.

SANTA CRUZ BIOTECHNOLOGY, INC.