Complement Receptor 2 (CD21) Rapid (CD21) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Complement Receptor 2 (CD21) Rapid, ELISA Kit
Full Product Name	Human Complement Receptor 2 (CD21) Rapid ELISA Kit
Product Gene Name	CD21 elisa kit
Species Reactivity	Human
Assay Type	sandwich
Samples	cell culture supernates, cell lysates, serum and plasma (heparin, EDTA)
Detection Range	0.78ng/ml-50ng/ml
Sensitivity	<20pg/ml
Preparation and Storage	Store at 4 degree C for 6 months, at -20 degree C for 12 months. Avoid multiple freeze-thaw cycles. (Shipped with wet ice)
OMIM	614699
3D Structure	ModBase 3D Structure for P20023
Detection Target	Complement Receptor 2 (CD21)
Immunogen Sequence	419
Cross-Reactivity	There is no detectable cross-reactivity with other relevant proteins.
Related Product Information for CD21 elisa kit	This Human Complement Receptor 2 (CD21) Rapid ELISA Kit is intended is a fast ELISA kit, this assay takes less than 1.5 hours to detect Human Cd21/CR2 with <20pg/ml sensitivity. format: 96-well plate with removable strips. Compatible samples: cell culture supernates, cell lysates, serum and plasma (heparin, EDTA). This is a TMB colorimetric sandwich ELISA kit with short assay time and fast experiment set up. Cd21/CR2 tissue specificity: Mature B-lymphocytes, T-lymphocytes, pharyngeal epithelial cells, astrocytes and follicular dendritic cells of the spleen. Strip well format. Reagents for up to 96 tests. This human CD21 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for CD21 has been precoated onto 96-well plates. Standards (CHO, Ile21-71) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for CD21 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human CD21 amount of sample captured in plate. The capture antibody is monoclonal antibody from mouse, the detection antibody is polyclonal antibody from goat. Expression system for standard: Complement receptor type 2 (CR2), also known as C3DR or CD21, is a protein that in humans is encoded by the CR2 gene. It is mapped to 1q32.2. CR2 is involved in the complement system. It binds to iC3b (inactive derivative of C3b), C3dg, or C3d. CR2 is the membrane protein on B lymphocytes to which the Epstein-Barr virus (EBV) binds during infection of these cells. CR2, together with CD19, CD81, and CD225, forms the B-cell coreceptor complex, which lowers the activation threshold of the B-cell antigen receptor. Genetic variations in this gene are associated with susceptibility to systemic lupus erythematosus type 9 (SLEB9).
Other Notes	Small volumes of CD21 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for CD21 purchase	MBS139874 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Complement Receptor 2 (CD21) Rapid, ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing CD21. The ELISA analytical biochemical technique of the MBS139874 kit is based on CD21 antibody-CD21 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CD21 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CD21. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD21. It may not necessarily be applicable to this product.

NCBI GI #	215273962
NCBI GeneID	1380
NCBI Accession #	P20023.2
UniProt Primary Accession #	P20023
UniProt Related Accession #	P20023
NCBI Official Full Name	Complement receptor type 2
NCBI Official Synonym Full Names	complement C3d receptor 2
NCBI Official Symbol	CR2
NCBI Official Synonym Symbols	CR; C3DR; CD21; CVID7; SLEB9
UniProt Protein Name	Complement receptor type 2
UniProt Synonym Protein Names	Complement C3d receptor; Epstein-Barr virus receptor; EBV receptor; CD_antigen: CD21
UniProt Gene Name	CR2
UniProt Synonym Gene Names	C3DR; Cr2; EBV receptor
UniProt Entry Name	CR2_HUMAN
NCBI Protein Information	complement receptor type 2
NCBI Summary for CD21	This gene encodes a membrane protein, which functions as a receptor for Epstein-Barr virus (EBV) binding on B and T lymphocytes. Genetic variations in this gene are associated with susceptibility to systemic lupus erythematosus type 9 (SLEB9). Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Sep 2009]

UniProt Comments for CD21	CR2: Receptor for complement C3Dd, for the Epstein-Barr virus on human B-cells and T-cells and for HNRPU. Participates in B lymphocytes activation. Genetic variations in CR2 are associated with susceptibility to systemic lupus erythematosus type 9 (SLEB9). Systemic lupus erythematosus (SLE) is a chronic autoimmune disease with a complex genetic basis. SLE is an inflammatory, and often febrile multisystemic disorder of connective tissue characterized principally by involvement of the skin, joints, kidneys, and serosal membranes. It is thought to represent a failure of the regulatory mechanisms of the autoimmune system. Defects in CR2 are the cause of immunodeficiency, common variable, type 7 (CVID7). A primary immunodeficiency characterized by antibody deficiency, hypogammaglobulinemia, recurrent bacterial infections and an inability to mount an antibody response to antigen. The defect results from a failure of B-cell differentiation and impaired secretion of immunoglobulins; the numbers of circulating B cells is usually in the normal range, but can be low. Belongs to the receptors of complement activation (RCA) family. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Receptor, misc.; Membrane protein, integral Chromosomal Location of Human Ortholog: 1q32 Cellular Component: plasma membrane; integral to membrane; receptor complex; external side of plasma membrane Molecular Function: complement binding; protein homodimerization activity; transmembrane receptor activity; complement receptor activity; DNA binding Biological Process: B cell proliferation; complement receptor mediated signaling pathway; B cell differentiation; innate immune response; immune response; complement activation, classical pathway Disease: Systemic Lupus Erythematosus, Susceptibility To, 9; Immunodeficiency, Common Variable, 2; Immunodeficiency, Common Variable, 7
Research Articles on CD21	**1.** Study reported that low CD19/CD21 expression is a general early feature of B cells in systemic lupus erythematosus (SLE) and is associated with an impairment of TLR9 response in these cells. Plasmacytoid dendritic cells from SLE patients that express TLR9, but not CD19, display normal TLR9 function. Thus, decreased CD19/CD21 expression combined with defective TLR9 function may fail to prevent autoreactive B cell death.
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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