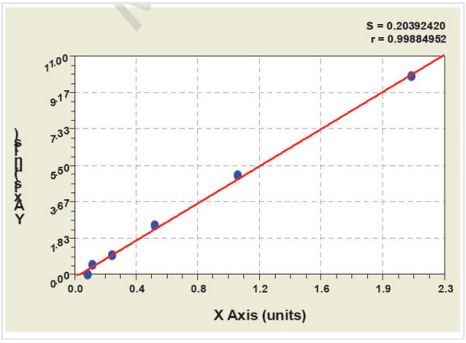
Dendritic Cell Associated C Type Lectin 1 (DCAL 2) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Dendritic cell Associated C type Lectin 1 (DCAL 2), ELISA Kit
Full Product Name	Human Dendritic cell Associated C type Lectin 1 ELISA Kit
Product Gene Name	DCAL 2 elisa kit
Species Reactivity	Human
Assay Type	Competitive or Sandwich
Samples	Serum, plasma, Cell Culture Supernatants, body fluid and tissue homogenate
Detection Range	0.5-10ng/mL
Sensitivity	0.1ng/mL
Preparation and Storage	Store all reagents at 2-8 degree C.
Molecular Weight	13,138 Da
OMIM	614079
Sample Preparation	We suggest pre-experimenting with neat (undiluted) samples, 1:2 or 1:4 dilutions. Please avoid diluting your samples more than 1:10 as it would exceed the dilution limit set for this kit. If the expected concentration of the target is beyond the detection range of the kit, please contact our technical support team
Intended Uses	This DCAL-2 ELISA kit is a 1.5 hour solid-phase ELISA designed for the quantitative determination of Human DCAL-2. This ELISA kit for research use only, not for therapeutic applications!
Product Categories/Family for DCAL 2 elisa kit	Neurobiology
ISO Certification	Manufactured in an ISO 13485:2016 Certified Laboratory.
Related Product Information for DCAL 2 elisa kit	**Principle of the Assay:** DCAL-2 ELISA kit applies the quantitative sandwich enzyme immunoassay technique. The microtiter plate has been pre-coated with a monoclonal antibody specific for DCAL-2. Standards or samples are then added to the microtiter plate wells and DCAL-2 if present, will bind to the antibody pre-coated wells. In order to quantitatively determine the amount of DCAL-2 present in the sample, a standardized preparation of horseradish peroxidase (HRP) -conjugated polyclonal antibody, specific for DCAL-2 are added to each well to "sandwich" the DCAL-2 immobilized on the plate. The microtiter plate undergoes incubation, and then the wells are thoroughly washed to remove all unbound components. Next, substrate solutions are added to each well. The enzyme (HRP) and substrate are allowed to react over a short incubation period. Only those wells that contain DCAL-2 and enzyme-conjugated antibody will exhibit a change in color. The enzyme-substrate reaction is terminated by addition of a sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450 nm. A standard curve is plotted relating the intensity of the color (O.D.) to the concentration of standards. The DCAL-2 concentration in each sample is interpolated from this standard curve.
Other Notes	Small volumes of DCAL 2 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 DCAL 2 purchase	MBS740093 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Dendritic cell Associated C type Lectin 1 (DCAL 2) 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 DCAL 2. The ELISA analytical biochemical technique of the MBS740093 kit is based on DCAL 2 antibody-DCAL 2 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect DCAL 2 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, DCAL 2. 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(%).



Typical Testing Data/Standard Curve (for reference only) of DCAL 2 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DCAL 2. It may not necessarily be applicable to this product.

NCBI GI #	13649708
NCBI GeneID	64581
NCBI Accession #	AAK37473.1
UniProt Secondary Accession #	Q6IPS7; Q96D32; Q96DR9; Q96LD3; Q96PA4; Q96PA5; Q96PA6; B2R861; B7Z494; B7Z5A9; B7Z5B9
UniProt Related Accession #	Q9BXN2
NCBI Official Full Name	dendritic cell-associated C-type lectin-1
NCBI Official Synonym Full Names	C-type lectin domain family 7, member A
NCBI Official Symbol	CLEC7A
NCBI Official Synonym Symbols	BGR; CANDF4; DECTIN1; CLECSF12
UniProt Protein Name	C-type lectin domain family 7 member A
UniProt Synonym Protein Names	Beta-glucan receptor; C-type lectin superfamily member 12; Dendritic cell-associated C-type lectin 1; DC-associated C-type lectin 1; Dectin-1
Protein Family	C-type lectin domain family
UniProt Gene Name	CLEC7A
UniProt Synonym Gene Names	BGR; CLECSF12; DECTIN1; UNQ539/PRO1082; DC-associated C-type lectin 1; Dectin-1
UniProt Entry Name	CLC7A_HUMAN
NCBI Protein Information	C-type lectin domain family 7 member A; dectin-1; beta-glucan receptor; lectin-like receptor 1; DC-associated C-type lectin 1; C-type lectin superfamily member 12; dendritic cell-associated C-type lectin 1; dendritic cell-associated C-type lectin-1; C-type (calcium dependent, carbohydrate-recognition domain) lectin, superfamily member 12
NCBI Summary for DCAL 2	This gene encodes a member of the C-type lectin/C-type lectin-like domain (CTL/CTLD) superfamily. The encoded glycoprotein is a small type II membrane receptor with an extracellular C-type lectin-like domain fold and a cytoplasmic domain with an immunoreceptor tyrosine-based activation motif. It functions as a pattern-recognition receptor that recognizes a variety of beta-1,3-linked and beta-1,6-linked glucans from fungi and plants, and in this way plays a role in innate immune response. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. This gene is closely linked to other CTL/CTLD superfamily members on chromosome 12p13 in the natural killer gene complex region. [provided by RefSeq, Jul 2008]

UniProt Comments for DCAL 2	dectin-1: Lectin that functions as pattern receptor specific for beta-1,3-linked and beta-1,6-linked glucans, such as cell wall constituents from pathogenic bacteria and fungi. Necessary for the TLR2-mediated inflammatory response and for TLR2-mediated activation of NF-kappa-B. Enhances cytokine production in macrophages and dendritic cells. Mediates production of reactive oxygen species in the cell. Mediates phagocytosis of C.albicans conidia. Binds T-cells in a way that does not involve their surface glycans and plays a role in T-cell activation. Stimulates T-cell proliferation. Up-regulated during differentiation from monocytes into dendritic cells. Isoform 5 interacts with RANBP9. 8 isoforms of the human protein are produced by alternative splicing. Protein type: Membrane protein, integral Chromosomal Location of Human Ortholog: 12p13.2 Cellular Component: cytoplasm; plasma membrane; integral to membrane Molecular Function: metal ion binding; MHC protein binding; carbohydrate binding; pattern recognition receptor activity Biological Process: T cell activation; innate immune response; carbohydrate mediated signaling; cell recognition; phagocytosis, recognition; pattern recognition receptor signaling pathway; defense response to protozoan; inflammatory response Disease: Aspergillosis, Susceptibility To; Candidiasis, Familial, 4
Research Articles on DCAL 2	**1.** The unconventional protein secretion triggered by the dectin-1 pathway is dependent on inflammasome activity and an active autophagic process.
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