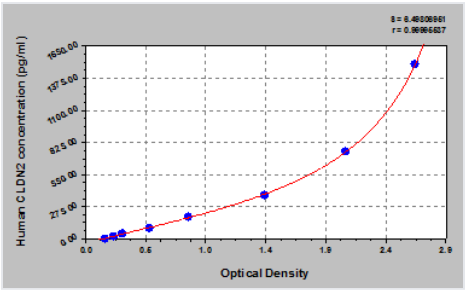
Claudin 2 (CLDN2) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	claudin 2 (CLDN2), ELISA Kit
Full Product Name	Human Claudin-2, CLDN2 ELISA Kit
Product Gene Name	CLDN2 elisa kit
Product Synonym Names	Human Claudin-2 (CLDN2) ELISA kit; RP1-75H8.2; ; claudin 2
Species Reactivity	Human
Assay Type	Sandwich
Samples	Serum, plasma, tissue homogenates, Cell lysates
Detection Range	23.5 pg/ml -1500 pg/ml.
Sensitivity	The minimum detectable dose of human CLDN2 is typically less than 5.86 pg/ml.The sensitivity of this assay, or Lower Limit of Detection (LLD) was defined as the lowest protein concentration that could be differentiated from zero. It was determined the mean O.D value of 20 replicates of the zero standard added by their three standard deviations.
Specificity	This assay has high sensitivity and excellent specificity for detection of human CLDN2. No significant cross-reactivity or interference between human CLDN2 and analogues was observed.
Preparation and Storage	Unopened test kits should be stored at 2 to 8 degree C upon receipt. Please refer to pdf manual for further storage instructions.
Inter-assay Precision	Inter-assay Precision (Precision between assays): CV%<10%. Three samples of known concentration were tested in twenty assays to assess.
Intra-assay Precision	Intra-assay Precision (Precision within an assay): CV%<8%. Three samples of known concentration were tested twenty times on one plate to assess.
Molecular Weight	24,549 Da
OMIM	300520
3D Structure	ModBase 3D Structure for P57739
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for CLDN2 elisa kit	**Principle of the assay:** This assay employs the quantitative sandwich enzyme immunoassay technique. Antibody specific for CLDN2 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any CLDN2 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for CLDN2 is added to the wells. After washing, avidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of CLDN2 bound in the initial step. The color development is stopped and the intensity of the color is measured.
Other Notes	Small volumes of CLDN2 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 CLDN2 purchase	MBS924552 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the claudin 2 (CLDN2) 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 CLDN2. The ELISA analytical biochemical technique of the MBS924552 kit is based on CLDN2 antibody-CLDN2 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CLDN2 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CLDN2. 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 CLDN2 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CLDN2. It may not necessarily be applicable to this product.

NCBI GI #	283806628
NCBI GeneID	9075
NCBI Accession #	NP_001164563.1
UniProt Primary Accession #	P57739
UniProt Secondary Accession #	B2R6B9
UniProt Related Accession #	P57739
GenBank Nucleotide #	NM_001171092.1
NCBI Official Full Name	claudin-2
NCBI Official Synonym Full Names	claudin 2
NCBI Official Symbol	CLDN2
UniProt Protein Name	Claudin-2
UniProt Synonym Protein Names	SP82
Protein Family	Claudin
UniProt Gene Name	CLDN2
UniProt Synonym Gene Names	PSEC0059; SP82; UNQ705/PRO1356
UniProt Entry Name	CLD2_HUMAN
NCBI Protein Information	claudin-2; SP82
NCBI Summary for CLDN2	This gene product belongs to the claudin protein family whose members have been identified as major integral membrane proteins localized exclusively at tight junctions. Claudins are expressed in an organ-specific manner and regulate tissue-specific physiologic properties of tight junctions. This protein is expressed in the intestine. Alternatively spliced transcript variants with different 5' untranslated region have been found for this gene.[provided by RefSeq, Jan 2010]

UniProt Comments for CLDN2	Claudin-2: Plays a major role in tight junction-specific obliteration of the intercellular space, through calcium-independent cell-adhesion activity. Belongs to the claudin family. Protein type: Membrane protein, integral; Membrane protein, multi-pass; Cytoskeletal Chromosomal Location of Human Ortholog: Xq22.3-q23 Cellular Component: tight junction; integral to membrane; plasma membrane Molecular Function: identical protein binding; structural molecule activity Biological Process: calcium-independent cell-cell adhesion
Research Articles on CLDN2	**1.** Report altered claudin 1 expression when comparing normal skin to actinic keratosis and squamous cell carcinoma of the skin.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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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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