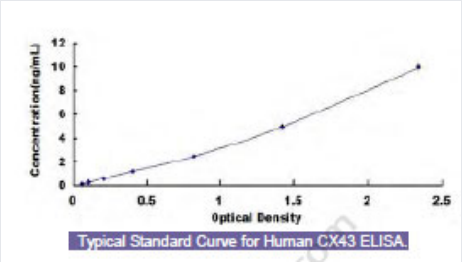
Connexin 43 (CX43) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Connexin 43 (CX43), ELISA Kit
Full Product Name	Human Connexin 43 (CX43) ELISA Kit
Product Gene Name	CX43 elisa kit
Product Synonym Names	ODDD; GJAL; GJA1; GJ-A1; Gap junction 43 kDa heart protein; Gap Junction Protein Alpha 1; Oculodentodigital Dysplasia; Syndactyly Type III
Species Reactivity	Human
Assay Type	Sandwich
Samples	Tissue homogenates, cell lysates and other biological fluids.
Detection Range	0.156-10ng/mL
Sensitivity	0.054ng/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of CX43. No significant cross-reactivity or interference between CX43 and analogues was observed.
Preparation and Storage	For unopened kit, all reagents should be kept according to the labels on vials. The TMB Substrate, Wash Buffer, Stop Solution should be stored at 4 degree C. All others should be stored at -20 degree C.
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level CX43 were tested on 3 different plates, 8 replicates in each plate. CV(%) = SD/meanX100. Inter-Assay: CV<12%
Intra-assay Precision	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level CX43 were tested 20 times on one plate, respectively. Intra-Assay: CV<10%
Molecular Weight	43,008 Da
OMIM	X52947 mRNA
3D Structure	ModBase 3D Structure for P17302
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for CX43 elisa kit	Intended Uses: The kit is a sandwich enzyme immunoassay for in vitro quantitative measurement of CX43 in human tissue homogenates, cell lysates and other biological fluids. Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to CX43. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to CX43. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain CX43, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm +/- 10nm. The concentration of CX43 in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of CX43 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 CX43 purchase	MBS450847 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Connexin 43 (CX43) 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 CX43. The ELISA analytical biochemical technique of the MBS450847 kit is based on CX43 antibody-CX43 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CX43 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CX43. 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 CX43 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CX43. It may not necessarily be applicable to this product.

NCBI GI #	4504001
NCBI GeneID	2697
NCBI Accession #	NP_000156.1
UniProt Primary Accession #	P17302
UniProt Secondary Accession #	Q6FHU1; Q9Y5I8; B2R5U9
UniProt Related Accession #	P17302
GenBank Nucleotide #	NM_000165.4
NCBI Official Full Name	gap junction alpha-1 protein
NCBI Official Synonym Full Names	gap junction protein alpha 1
NCBI Official Symbol	GJA1
NCBI Official Synonym Symbols	HSS; CMDR; CX43; EKVP; GJAL; ODDD; AVSD3; HLHS1; PPKCA
UniProt Protein Name	Gap junction alpha-1 protein
UniProt Synonym Protein Names	Connexin-43; Cx43; Gap junction 43 kDa heart protein
Protein Family	Gap junction alpha-1 protein
UniProt Gene Name	GJA1
UniProt Synonym Gene Names	GJAL; Cx43
NCBI Protein Information	gap junction alpha-1 protein
NCBI Summary for CX43	This gene is a member of the connexin gene family. The encoded protein is a component of gap junctions, which are composed of arrays of intercellular channels that provide a route for the diffusion of low molecular weight materials from cell to cell. The encoded protein is the major protein of gap junctions in the heart that are thought to have a crucial role in the synchronized contraction of the heart and in embryonic development. A related intronless pseudogene has been mapped to chromosome 5. Mutations in this gene have been associated with oculodentodigital dysplasia, autosomal recessive craniometaphyseal dysplasia and heart malformations. [provided by RefSeq, May 2014]

UniProt Comments for CX43	Gap junction protein that acts as a regulator of bladder capacity. A gap junction consists of a cluster of closely packed pairs of transmembrane channels, the connexons, through which materials of low MW diffuse from one cell to a neighboring cell. May play a critical role in the physiology of hearing by participating in the recycling of potassium to the cochlear endolymph. Negative regulator of bladder functional capacity: acts by enhancing intercellular electrical and chemical transmission, thus sensitizing bladder muscles to cholinergic neural stimuli and causing them to contract (). May play a role in cell growth inhibition through the regulation of NOV expression and localization. Plays an essential role in gap junction communication in the ventricles ().
Research Articles on CX43	**1.** AMPK inhibits Cx43 in BSMCs and improves bladder activity under pathological conditions. We propose that strategies that target AMPK can be developed as novel therapeutic approaches for treating bladder dysfunction.
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