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Anti-Connexin 43/GJA1 Antibody

Catalog # ABO10519

Product Information

Application	WB, IHC-P
Primary Accession	P17302
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Gap junction alpha-1 protein(GJA1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	2697
Other Names	Gap junction alpha-1 protein, Connexin-43, Cx43, Gap junction 43 kDa heart protein, GJA1, GJAL
Calculated MW	43008
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	Cell membrane ; Multi-pass membrane protein . Cell junction, gap junction . Endoplasmic reticulum .
Tissue Specificity	Expressed in the heart and fetal cochlea. .
Source	Eukaryota
Protein Name	Gap junction alpha-1 protein
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Connexin 43(366-382aa RASSRASSRPRPDDLEI), identical to the related rat and mouse sequences.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the connexin family. Alpha-type (group II) subfamily.

Protein Information

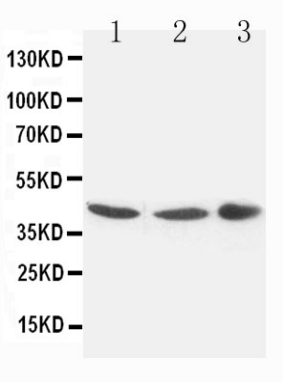
Name	GJA1
Synonyms	GJAL
Function	Structural component of the gap junction, a specialized intercellular structure consisting of a cluster of closely packed pairs of transmembrane channels, the connexons, that allow passage of small molecules and electrical signals between neighboring cells (By similarity). Forms homotypic and heterotypic channels gated by transjunctional voltage (By similarity). May play a critical role in the physiology of hearing by participating in the recycling of potassium to the cochlear endolymph (Probable). 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 (By similarity). May play a role in the conductive system of ventricular myocardium and heart morphogenesis (By similarity). May play a role in cell growth inhibition through the regulation of NOV expression and localization (By similarity). Involved in intercellular innate immune signaling (PubMed:24077100, PubMed:31992625, PubMed:40010341). Mediates translocation of 2',3'-cGAMP and 2',5'-oligoadenylates (2-5A) second messengers from virus-infected cells to macrophages and uninfected neighboring cells to propagate and amplify the antiviral immune response (PubMed:24077100, PubMed:31992625, PubMed:40010341).
Cellular Location	Cell membrane; Multi-pass membrane protein. Cell junction, gap junction. Endoplasmic reticulum {ECO:0000250|UniProtKB:P23242}. Cell junction Note=Localizes at the intercalated disk (ICD) between two adjacent cardiomyocytes and the proper localization at ICD is dependent on TMEM65. {ECO:0000250|UniProtKB:P23242}
Tissue Location	Expressed at intercalated disks in the heart (at protein level) (PubMed:11741837, PubMed:18662195, PubMed:38375917) Expressed in the fetal cochlea (PubMed:11741837). Expressed by keratinocytes in the skin (at protein level) (PubMed:26604139)

Background

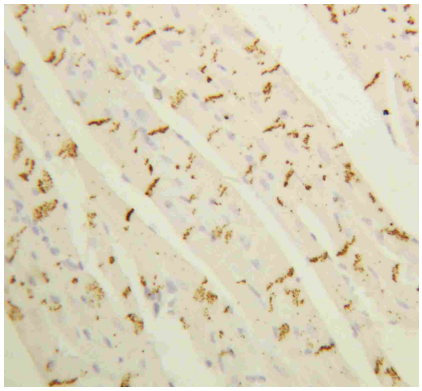
Connexins 43(Cx43), also called GAP Junction Protein, alpha-1(GJA1). Connexin 43 is a member of the connexin gene family which abundantly expressed in the heart and liver and was mapped to 6q21-q23.2. Connexin43, the major protein of gap junctions in the heart, is targeted by several protein kinases that regulate myocardial cell-cell coupling. Mutations in the connexin43 gap-junction gene, which lead to abnormally regulated cell-cell communication, are associated with visceroatrial heterotaxia. Cx43 must also play a critical role in the physiology of hearing, presumably by participating in the recycling of potassium to the cochlear endolymph.

Images

Anti-Connexin 43/GJA1 antibody, ABO10519, Western



blottingLane 1: Rat Cardiac Muscle Tissue LysateLane 2: Rat Cardiac Muscle Tissue LysateLane 3: Rat Brain Tissue Lysate



Anti-Connexin 43/GJA1 antibody, ABO10519, IHC(P)IHC(P): Rat Cardiac Muscle Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.