Gap Junction Alpha-1 (GJA1) Recombinant Protein

PRODUCT OVERVIEW

Product Name	Gap junction alpha-1 (GJA1), Recombinant Protein
Full Product Name	Gap junction alpha-1 protein
Product Gene Name	GJA1 recombinant protein
Product Synonym Names	GJAL; Connexin-43; Gap junction 43 kDa heart protein; Cx43
Host	E Coli
Form/Format	Liquid
Purity/Purification	>95% by SDS-PAGE
Preparation and Storage	Store at -20 degree C. Avoid repeated freezing and thawing.
Molecular Weight	43,008 Da
OMIM	104100
3D Structure	ModBase 3D Structure for P17302
Tags	His
Storage Buffer	50mM NaH2PO4, 500mM NaCl Buffer with 500mM Imidazole,10%glycerol(PH8.0)
Applications Tested/Suitable for GJA1 recombinant protein	ELISA (EIA), Western Blot (WB), Affinity Purification (AP), Protein Array
Related Product Information for GJA1 recombinant protein	MBS2889492 is a recombinant protein targeting GJA1. Also known as Gap junction alpha-1 protein. Host: E Coli.
Other Notes	Small volumes of GJA1 recombinant protein 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.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GJA1. 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; EKVP3; 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 GJA1	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 GJA1	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 GJA1	**1.** To determine the role of connexin43 hemichannels in diabetic retinopathy, changes in cytokine and ATP release were evaluated after treatment with Peptide5, a connexin43 hemichannel blocker. Co-application of glucose and cytokines increased the secretion of IL-6, IL-8, MCP-1, sICAM-1, VEGF and ATP. Peptide 5 blocked this and prevented ATP release, indicating a role for connexin-43 hemichannels.
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