

## GJA1 Protein, Human (His)

<b>Cat. No.:</b>	HY-P72205
<b>Synonyms:</b>	Connexin 43; Connexin-43; Cx 43; Cx43; CXA1_HUMAN; DFNB38; Gap junction 43 kDa heart protein; Gap junction alpha-1 protein; Gap junction protein alpha 1 43kDa connexin 43; ; Gap junction protein alpha 1 43kDa; Gap junction protein alpha like; GJA 1; Gja1; GJAL; ODD; ODDD; ODOD; SDTY3
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	P17302 (F233-I382)
<b>Gene ID:</b>	2697
<b>Molecular Weight:</b>	Approximately 22 kDa

### PROPERTIES

<b>AA Sequence</b>	F K G V K D R V K G      K S D P Y H A T S G      A L S P A K D C G S      Q K Y A Y F N G C S S P T A P L S P M S      P P G Y K L V T G D      R N N S S C R N Y N      K Q A S E Q N W A N Y S A E Q N R M G Q      A G S T I S N S H A      Q P F D F P D D N Q      N S K K L A A G H E L Q P L A I V D Q R      P S S R A S S R A S      S R P R P D D L E I
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm solution of 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>The GJA1 Protein serves as a gap junction protein with regulatory roles in bladder capacity. Comprising closely packed pairs of transmembrane channels called connexons, it facilitates the diffusion of low molecular weight materials between neighboring cells. This protein plays a crucial role in hearing physiology by participating in the recycling of potassium to the cochlear endolymph. Acting as a negative regulator of bladder functional capacity, GJA1 enhances intercellular electrical and chemical transmission, sensitizing bladder muscles to cholinergic neural stimuli and causing contraction. Additionally, it may contribute to cell growth inhibition through the regulation of NOV expression and localization. Essential for gap junction communication in the ventricles, GJA1 interacts with various proteins, including TJP1, SRC, UBQLN4, SGSM3, CNST, RIC1/CIP150, CSNK1D, NOV, and TMEM65, thereby playing a multifaceted role in cellular communication and regulation.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA