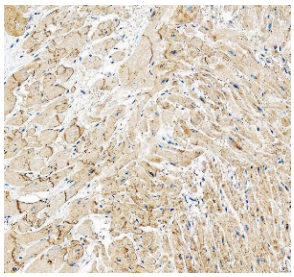
GJA4 Antibody / Gap junction alpha 4 (FY12606)

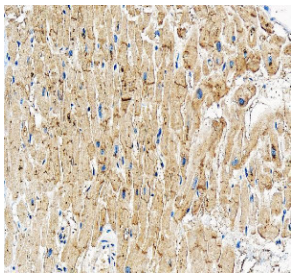
Catalog No.	Formulation	Size
FY12606	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

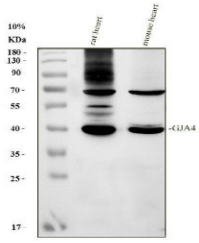
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	P35212
Applications	ELISA: 0.1-0.5ug/ml Western Blot: 0.25-0.5ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This GJA4 antibody is available for research use only.



GJA4 Antibody Heart IHC. Immunohistochemistry analysis of FFPE human heart tissue using GJA4 Antibody. Heat induced antigen retrieval was performed in pH 8.0 EDTA buffer prior to overnight incubation with primary antibody (2 ug/mL) at 4Â°C. Peroxidase-conjugated goat anti-rabbit IgG and DAB chromogen were used for visualization. Predominantly membranous and cytoplasmic staining is observed throughout cardiomyocytes, consistent with the localization of GJA4 (Connexin 37), a gap junction protein that mediates intercellular communication and electrical coupling within cardiac tissue. These results support the use of GJA4 Antibody / Gap Junction Protein Antibody for studying GJA4 expression, gap junction organization and cardiovascular biology.



GJA4 Antibody Human Heart Tissue IHC. Immunohistochemistry analysis of FFPE human heart tissue using GJA4 Antibody. Heat induced antigen retrieval was performed in pH 8.0 EDTA buffer prior to overnight incubation with primary antibody (2 ug/mL) at 4Â°C. Peroxidase-conjugated goat anti-rabbit IgG and DAB chromogen were used for visualization. Predominantly membranous and cytoplasmic staining is observed in cardiomyocytes, consistent with the localization of GJA4 (Connexin 37), a gap junction protein involved in intercellular communication and electrical signaling. These results support the use of GJA4 Antibody / Gap Junction Protein Antibody for studying GJA4 expression, gap junction organization and cardiovascular physiology.



GJA4 Antibody Mouse and Rat Heart WB. Western blot analysis using GJA4 Antibody. Lane 1: rat heart tissue lysate; Lane 2: mouse heart tissue lysate. A prominent band is detected at approximately 40 kDa in both samples, consistent with the expected molecular weight of GJA4 (approximately 37 kDa). Additional higher molecular weight bands are also observed, which may represent post-translationally modified forms, oligomeric connexin complexes or other GJA4-associated species commonly detected for gap junction proteins under denaturing conditions. These results support the use of GJA4 Antibody / Gap Junction Protein Antibody for studying GJA4 expression, gap junction organization and cardiovascular biology.

Description

GJA4 antibody detects Gap junction alpha-4 protein, also known as Connexin 37, a transmembrane protein forming intercellular channels that mediate direct communication between adjacent cells. GJA4 enables diffusion of ions, metabolites, and signaling molecules, maintaining vascular tone and tissue homeostasis. The GJA4 antibody is widely used in cardiovascular, reproductive, and cellular communication studies to explore gap junction biology and endothelial signaling.

GJA4 is encoded by the GJA4 gene on human chromosome 1p35.1. The protein is approximately 333 amino acids long and contains four transmembrane helices, two extracellular loops, and cytoplasmic N- and C-terminal domains. GJA4 assembles into hexameric connexons that dock with connexons of neighboring cells, forming gap junction channels that permit electrical and chemical coupling.

The GJA4 antibody detects a 37 kilodalton band by western blot and shows punctate membrane staining consistent with gap junction plaques under immunofluorescence. GJA4 is abundantly expressed in vascular endothelial and smooth muscle cells, where it mediates synchronized contraction and vascular tone regulation. In ovarian follicles and the placenta, GJA4 facilitates cell communication critical for follicular development and embryonic exchange.

Mutations in GJA4 disrupt gap junction communication, contributing to vascular dysfunction and reproductive disorders. Altered GJA4 expression has been observed in atherosclerosis, hypertension, and tumor angiogenesis. Its expression pattern varies with hormonal and mechanical stimuli, reflecting its responsiveness to physiological cues controlling vascular integrity.

GJA4 channels are regulated by phosphorylation, pH, and redox state, allowing dynamic modulation of intercellular connectivity. Because gap junctions coordinate tissue-level responses, GJA4 represents a vital component of multicellular signaling networks. NSJ Bioreagents provides a validated GJA4 antibody optimized for its applications, supporting detailed studies of cell coupling, signal propagation, and endothelial homeostasis.

Researchers studying gap junction proteins and cardiovascular cell communication may also be interested in our Cardiovascular Antibodies page, featuring antibodies against connexins, ion channels and other proteins involved in cardiac function, vascular biology and intercellular signaling.

Application Notes

Optimal dilution of the GJA4 antibody should be determined by the researcher.

Immunogen

E.coli-derived human GJA4 recombinant protein (Position: H95-R148) was used as the immunogen for the GJA4 antibody.

Storage

After reconstitution, the GJA4 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Connexin 37 antibody, CX37 antibody, Gap Junction Alpha 4 Protein antibody, Connexin-37 antibody, Cx37 Gap Junction Protein antibody, Gap Junction Protein Alpha 4 antibody, GJA4 Protein antibody

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