

ARG43622 anti-Connexin 43 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Connexin 43
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Connexin 43
Species	Human
Immunogen	Recombinant protein fragment within a.a. 1 - 370 of Human Connexin 43.
Conjugation	Un-conjugated
Alternate Names	Gap junction 43 kDa heart protein; CX43; PPKCA; CMDR; Gap junction alpha-1 protein; HSS; AVSD3; Connexin-43; HLHS1; EKVP; GJAL; ODDD; Cx43

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:250
	IHC-P	1:250 - 1:1000
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	43 kDa	

Properties

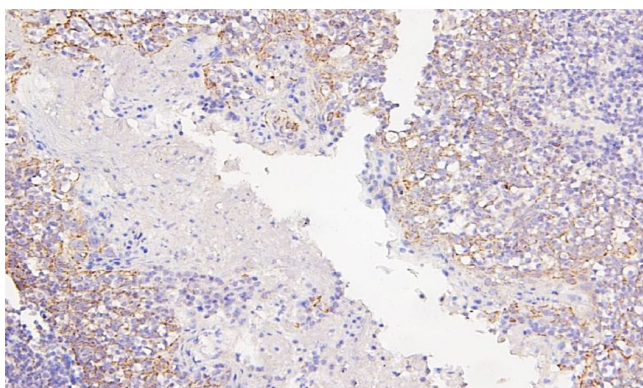
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.9% NaCl, 0.2% Na ₂ HPO ₄ , 0.05% Sodium azide and 4% Trehalose.
Preservative	0.05% Sodium azide
Stabilizer	4% Trehalose
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	GJA1
Gene Full Name	gap junction protein, alpha 1, 43kDa
Background	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]
Function	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 (By similarity). 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 (By similarity). [UniProt]
Calculated Mw	43 kDa
PTM	Phosphorylated at Ser-368 by PRKCG; phosphorylation induces disassembly of gap junction plaques and inhibition of gap junction activity (By similarity). Phosphorylation at Ser-325, Ser-328 and Ser-330 by CK1 modulates gap junction assembly. Phosphorylation at Ser-368 by PRKCD triggers its internalization into small vesicles leading to proteasome-mediated degradation (By similarity). Sumoylated with SUMO1, SUMO2 and SUMO3, which may regulate the level of functional Cx43 gap junctions at the plasma membrane. May be desumoylated by SENP1 or SENP2. S-nitrosylation at Cys-271 is enriched at the muscle endothelial gap junction in arteries, it augments channel permeability and may regulate of smooth muscle cell to endothelial cell communication. [UniProt]
Cellular Localization	Cell membrane; Multi-pass membrane protein. Cell junction, gap junction. Endoplasmic reticulum. Note=Localizes at the intercalated disk (ICD) in cardiomyocytes and the proper localization at ICD is dependent on TMEM65. [UniProt]

Images

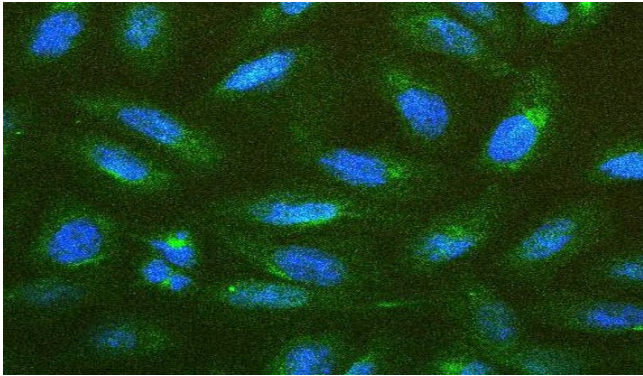
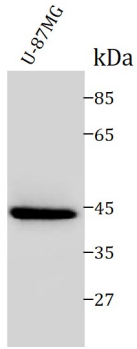


ARG43622 anti-Connexin 43 antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human Tonsil tissue stained with ARG43622 anti-Connexin 43 antibody at 1:500 dilution. Antigen Retrieval: Heat mediated was performed using citrate buffer pH 6.0.

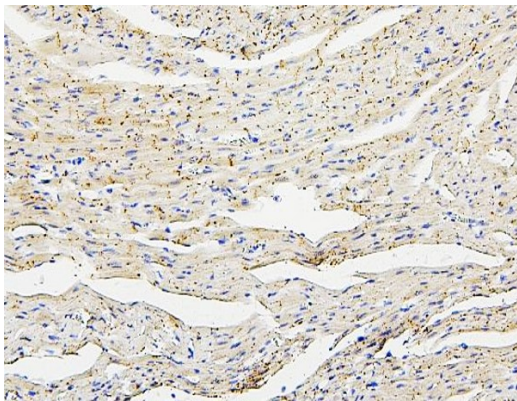
ARG43622 anti-Connexin 43 antibody WB image

Western blot: U-87MG cell lysates stained with ARG43622 anti-Connexin 43 antibody at 1:1000 dilution



ARG43622 anti-Connexin 43 antibody ICC/IF image

Immunofluorescence: U2OS cells were stained ARG43622 anti-Connexin 43 antibody (green) at 1:250 and 4°C.

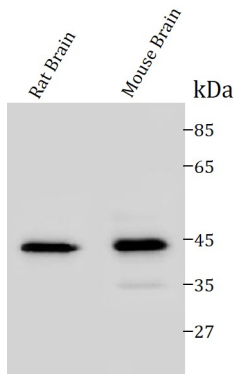


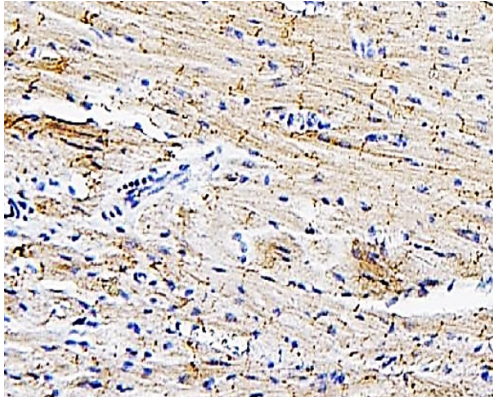
ARG43622 anti-Connexin 43 antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Rat Cardiac Muscle tissue stained with ARG43622 anti-Connexin 43 antibody at 1:500 dilution. Antigen Retrieval: Heat mediated was performed using citrate buffer pH 6.0.

ARG43622 anti-Connexin 43 antibody WB image

Western blot: Rat brain tissue and Mouse brain tissue stained with ARG43622 anti-Connexin 43 antibody at 1:1000 dilution





ARG43622 anti-Connexin 43 antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Mouse Cardiac Muscle tissue stained with ARG43622 anti-Connexin 43 antibody at 1:500 dilution. Antigen Retrieval: Heat mediated was performed using citrate buffer pH 6.0.