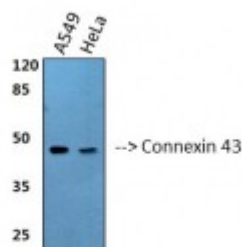


Anti-Connexin 43 antibody



Western Blot (WB) analysis of 1. A549 2. HeLa using Connexin 43 Polyclonal Antibody. (STJ92411)



Description

Connexin 43 is a protein encoded by the GJA1 gene which is approximately 43 kDa. Connexin 43 is localised to the cell membrane and endoplasmic reticulum. It is involved in gap junction trafficking and transport of connexins along the secretory pathway. It 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. In the heart these gap junctions are thought to have a crucial role in the synchronized contraction of the heart and in embryonic development. Connexin 43 is expressed in the heart and foetal cochlea. Mutations in the GJA1 gene may result in Oculodentodigital dysplasia. STJ92411 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of Connexin 43 protein.

Model	STJ92411
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IF, IHC, WB
Immunogen	Synthesized peptide derived from human Connexin 43
Immunogen Region	310-390 aa, C-terminal
Gene ID	2697
Gene Symbol	GJA1
Dilution range	WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:10000
Specificity	Connexin 43 Polyclonal Antibody detects endogenous levels of Connexin 43

protein.

Tissue Specificity	Expressed in the heart and fetal cochlea.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Gap junction alpha-1 protein Connexin-43 Cx43 Gap junction 43 kDa heart protein
Molecular Weight	43 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:4274OMIM:104100
Alternative Names	Gap junction alpha-1 protein Connexin-43 Cx43 Gap junction 43 kDa heart protein
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 . 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 .
Cellular Localization	Cell membrane Cell junction, gap junction Endoplasmic reticulum. Localizes at the intercalated disk (ICD) in cardiomyocytes and the proper localization at ICD is dependent on TMEM65.
Post-translational Modifications	Phosphorylated at Ser-368 by PRKCG; phosphorylation induces disassembly of gap junction plaques and inhibition of gap junction activity . 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 . 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.

