ARG11097
anti-Connexin 43 antibody [1A]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [1A] recognizes Connexin 43
Tested Reactivity	Ms
Tested Application	ICC/IF, IHC-Fr, WB
Host	Mouse
Clonality	Monoclonal
Clone	1A
Isotype	IgG
Target Name	Connexin 43
Species	Human
Immunogen	Synthetic peptide, EIKKFKYGIEEH, was coupled at the C-terminal end to bovine thyroglobulin at a final molar ratio peptide : thyroglobulin of 40 - 60 : 1.
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	Assay-dependent
IHC-Fr	Assay-dependent
WB	Assay-dependent

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.2) and 0.09% Sodium azide.
Preservative	0.09% Sodium azide
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]
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]