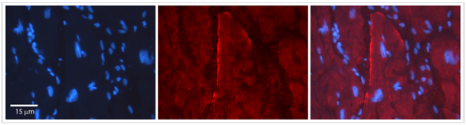
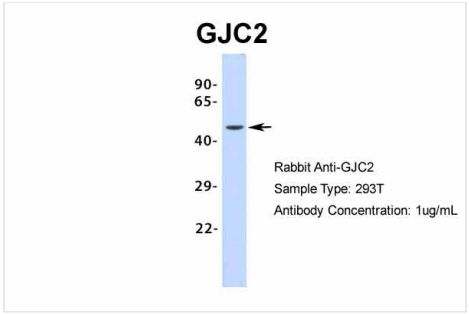
GJC2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

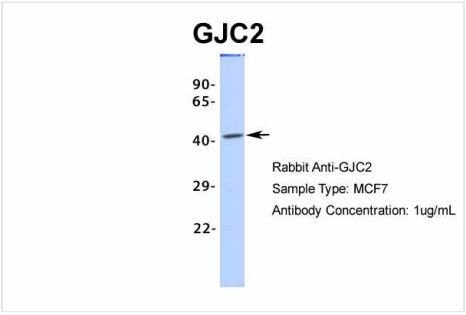
Product Name	GJC2, Polyclonal Antibody
Full Product Name	GJC2 antibody - middle region
Product Gene Name	anti-GJC2 antibody
Product Synonym Gene Name	CX46.6; Cx47; GJA12; MGC105119; PMLDAR; HLD2; SPG44; LMPH1C
Immunogen Sequence	Synthetic peptide located within the following region: APASRTGSAT SAGTVGEQGR PGTHERPGAK PRAGSEKGSA SSRDGKTTVW
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Rabbit
Form/Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Purity/Purification	Affinity Purified
Preparation and Storage	For short term use, store at 2-8 degree C up to 1 week. For long term storage, store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Antibody/Peptide Pairs	GJC2 peptide (MBS3228195) is used for blocking the activity of GJC2 antibody (MBS3203223)
Molecular Weight	47kDa
OMIM	608803
3D Structure	ModBase 3D Structure for Q5T442
Homology	Human: 100%; Rabbit: 100%
Immunogen	The immunogen is a synthetic peptide directed towards the middle region of human GJC2
Product Categories/Family for anti-GJC2 antibody	Polyclonal; Signal Proteins; Membrane Protein; Disease Related
Applications Tested/Suitable for anti-GJC2 antibody	Western Blot (WB), Immunohistochemistry (IHC)
Related Product Information for anti-GJC2 antibody	This is a rabbit polyclonal antibody against GJC2. It was validated on Western Blot using a cell lysate as a positive control. Target Description: GJC2 is a gap junction protein. Gap junction proteins are members of a large family of homologous connexins and comprise 4 transmembrane, 2 extracellular, and 3 cytoplasmic domains. This gene plays a key role in central myelination and is involved in peripheral myelination in humans. Defects in this gene are the cause of autosomal recessive Pelizaeus-Merzbacher-like disease-1.This gene encodes a gap junction protein. Gap junction proteins are members of a large family of homologous connexins and comprise 4 transmembrane, 2 extracellular, and 3 cytoplasmic domains. This gene plays a key role in central myelination and is involved in peripheral myelination in humans. Defects in this gene are the cause of autosomal recessive Pelizaeus-Merzbacher-like disease-1.
Other Notes	Small volumes of anti-GJC2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for GJC2 purchase	MBS3203223 is an antibody targeting GJC2. Also known as GJC2 antibody - middle region. Reactive in Human, Rabbit. Host: Rabbit.



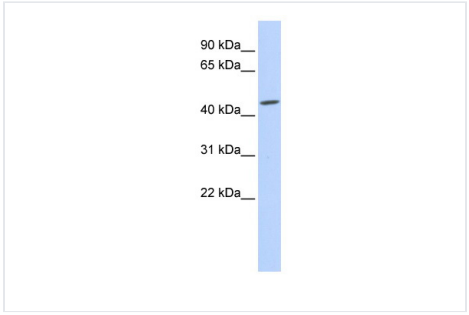
Immunohistochemistry (IHC) of anti-GJC2 antibody
Rabbit Anti-GJC2 AntibodyFormalin Fixed Paraffin Embedded Tissue: Human Adult heartObserved Staining: Membrane, some cytoplasmPrimary Antibody Concentration: 1:100Secondary Antibody: Donkey anti-Rabbit-Cy2/3Secondary Antibody Concentration: 1:200Magnification: 20XExposure Time: 0.5 - 2.0 secProtocol located in Reviews and Data.



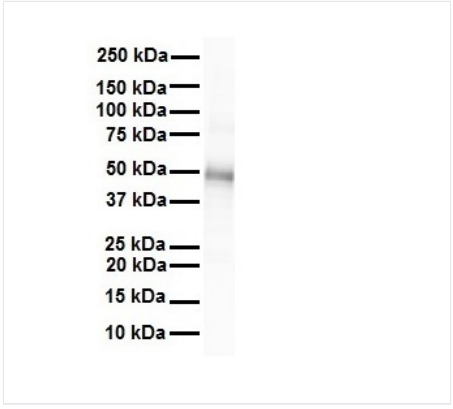
Western Blot (WB) of anti-GJC2 antibody
Host: RabbitTarget Name: GJC2Sample Type: 293TAntibody Dilution: 1.0ug/mlGJC2 is supported by BioGPS gene expression data to be expressed in HEK293T



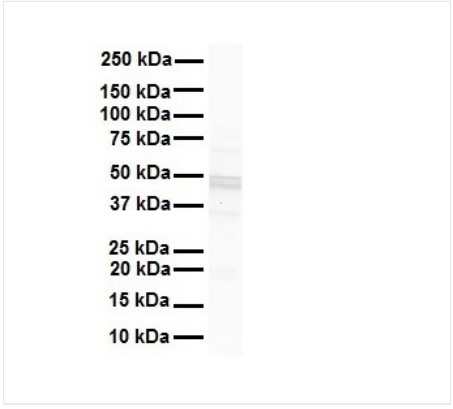
Western Blot (WB) of anti-GJC2 antibody
Host: RabbitTarget Name: GJC2Sample Type: MCF7Antibody Dilution: 1.0ug/ml



Western Blot (WB) of anti-GJC2 antibody
WB Suggested Anti-GJC2 Antibody Titration: 0.2-1 ug/mlELISA Titer: 1:312500Positive Control: MCF7 cell lysate



Western Blot (WB) of anti-GJC2 antibody
WB Suggested Anti-GJC2 antibody Titration: 1 ug/mLSample Type: Human heart



Western Blot (WB) of anti-GJC2 antibody
WB Suggested Anti-GJC2 antibody Titration: 1 ug/mLSample Type: Human liver

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GJC2. It may not necessarily be applicable to this product.

NCBI GI #	45439367
NCBI GeneID	57165
NCBI Accession #	NP_065168
UniProt Primary Accession #	Q5T442
UniProt Related Accession #	Q5T442
GenBank Nucleotide #	NM_020435
NCBI Official Full Name	gap junction gamma-2 protein
NCBI Official Synonym Full Names	gap junction protein gamma 2

NCBI Official Symbol	GJC2
NCBI Official Synonym Symbols	Cx47; HLD2; GJA12; SPG44; CX46.6; LMPH1C; LMPHM3; PMLDAR
UniProt Protein Name	Gap junction gamma-2 protein
UniProt Synonym Protein Names	Connexin-46.6; Cx46.6; Connexin-47; Cx47; Gap junction alpha-12 protein
Protein Family	Gap junction gamma-2 protein
UniProt Gene Name	GJC2
UniProt Synonym Gene Names	GJA12; Cx46.6; Cx47
UniProt Entry Name	CXG2_HUMAN
NCBI Protein Information	gap junction gamma-2 protein
NCBI Summary for GJC2	This gene encodes a gap junction protein. Gap junction proteins are members of a large family of homologous connexins and comprise 4 transmembrane, 2 extracellular, and 3 cytoplasmic domains. This gene plays a key role in central myelination and is involved in peripheral myelination in humans. Defects in this gene are the cause of autosomal recessive Pelizaeus-Merzbacher-like disease-1. [provided by RefSeq, Jul 2008]
UniProt Comments for GJC2	GJA12: One 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 role in myelination in central and peripheral nervous systems. Defects in GJC2 are the cause of leukodystrophy hypomyelinating type 2 (HLD2); also known as Pelizaeus-Merzbacher-like disease autosomal recessive type 1. HLD2 is an autosomal recessive hypomyelinating leukodystrophy characterized by nystagmus, impaired motor development, ataxia, choreoathetotic movements, dysarthria and progressive spasticity. Defects in GJC2 are the cause of spastic paraplegia autosomal recessive type 44 (SPG44). A form of spastic paraplegia, a neurodegenerative disorder characterized by a slow, gradual, progressive weakness and spasticity of the lower limbs. Rate of progression and the severity of symptoms are quite variable. Initial symptoms may include difficulty with balance, weakness and stiffness in the legs, muscle spasms, and dragging the toes when walking. In some forms of the disorder, bladder symptoms (such as incontinence) may appear, or the weakness and stiffness may spread to other parts of the body. Defects in GJC2 are the cause of lymphedema hereditary type 1C (LMPH1C). LMPH1C is a chronic disabling condition which results in swelling of the extremities due to altered lymphatic flow. Patients with lymphedema suffer from recurrent local infections and physical impairment. Belongs to the connexin family. Gamma-type subfamily. Protein type: Membrane protein, multi-pass; Membrane protein, integral Chromosomal Location of Human Ortholog: 1q42.13 Cellular Component: connexon complex; integral to membrane; myelin sheath Molecular Function: gap junction channel activity Biological Process: cell-cell signaling; response to toxin; transmembrane transport Disease: Leukodystrophy, Hypomyelinating, 2; Spastic Paraplegia 44, Autosomal Recessive; Lymphedema, Hereditary, Ic
Research Articles on GJC2	**1.** Connexin 43-connexin 47 channels are important for astrocyte/ oligodendrocyte cross-talk in myelination and demyelination. (Review)
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