SunLong Biotech Co.,LTD
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Rabbit Anti-Connexin 43 antibody

SL0651R

Product Name	Connexin 43
Chinese Name	间隙连接蛋白 43 抗体
Alias	Connexin 43; connexin43; Connexin43v; Cx 43v; CX43; CX 43; CX-43; DFNB38; Gap junction protein;Connexin-43; Gap junction alpha 1 protein; Gap junction protein alpha 1 43kDa (connex junction protein alpha 1 43kDa; Gap junction protein alpha like; GJA 1; GJA1; GJA-1; GJAL; H HGNC:8112; Oculodentodigital dysplasia; ODD; ODOD; SDTY3; Syndactyly type III; CXA1_
Research Area	Tumour immunology transcriptional regulatory factor
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human Mouse Rat(predicted:Chicken Dog Cow)
Applications	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,Flow-C（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	42kDa
Cellular localization	cytoplasmic The cell membrane Extracellular matrix
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Connexin-43: 211-260/382 human <Cyt
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	Human,Mouse,Rat(predicted:Chicken,Dog,Cow)1M TBS(pH7.4) with 1% BSA, Human,Mouse,Rat(predicted:Chicken,Dog,Cow)3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or d applications.

PubMed

PubMed

This gene is a member of the connexin gene family. The encoded protein is a component of gap
which are composed of arrays of intercellular channels that provide a route for the diffusion of lo
weight materials from cell to cell. The encoded protein is the major protein of gap junctions in th
are thought to have a crucial role in the synchronized contraction of the heart and in embryonic d
A related intronless pseudogene has been mapped to chromosome 5. Mutations in this gene have
associated with oculodentodigital dysplasia and heart malformations. [provided by RefSeq].

Product Detail

Function:
Gap junction protein that acts as a regulator of bladder capacity. A gap junction consists of a clus
packed pairs of transmembrane channels, the connexons, through which materials of low MW di
one cell to a neighboring cell. May play a critical role in the physiology of hearing by participati
recycling of potassium to the cochlear endolymph. Negative regulator of bladder functional capa
enhancing intercellular electrical and chemical transmission, thus sensitizing bladder muscles to
neural stimuli and causing them to contract.

Subunit:
A connexon is composed of a hexamer of connexins. Interacts (via C-terminus) with TJP1. Inter
C-terminus) with SRC (via SH3 domain). Interacts with UBQLN4. Interacts with SGSM3. Intera
KIAA1432/CIP150. Interacts with CNST and CSNK1D.

Subcellular Location:
Cell membrane; Multi-pass membrane protein. Cell junction, gap junction.

Tissue Specificity:
Expressed in the heart and fetal cochlea.

Post-translational modifications:
Phosphorylated at Ser-368 by PRKCG; phosphorylation induces disassembly of gap junction pla
inhibition of gap junction activity. Phosphorylation at Ser-325, Ser-328 and Ser-330 by CK1 mo
junction assembly.

DISEASE:
Defects in GJA1 are the cause of autosomal dominant oculodentodigital dysplasia (ODDD) [MI
also known as oculodentoosseous dysplasia. ODDD is a highly penetrant syndrome presenting w
craniofacial (ocular, nasal, dental) and limb dysmorphisms, spastic paraplegia, and neurodegener
Craniofacial anomalies tipically include a thin nose with hypoplastic alae nasi, small anteverted
prominent columnella, and microcephaly. Brittle nails and hair abnormalities of hypotrichosis ar
growth are present. Ocular defects include microphthalmia, microcornea, cataracts, glaucoma, ar
atrophy. Syndactyly type 3 and conductive deafness can occur in some cases. Cardiac abnormali
observed in rare instances.

Similarity:
Belongs to the connexin family. Alpha-type (group II) subfamily.

SWISS:
P17302

Gene ID:
2697

Database links:

Entrez Gene: 2697 Human

Entrez Gene: 14609 Mouse

Entrez Gene: 24392 Rat

Omim: 121014 Human

SwissProt: P17302 Human

SwissProt: P23242 Mouse

SwissProt: P08050 Rat

Unigene: 74471 Human

间隙连接蛋白-43(Gap junction alpha-1 protein; GJA-1; (Vascular smooth muscle connexin-43))
间的通道，小分子成份可以借此在细胞间扩散。Connexin-43 也是心肌缝隙连接的主要蛋
此外，星形细胞、成纤维细胞、平滑肌和肾等组织也有表达 Connexin 43.

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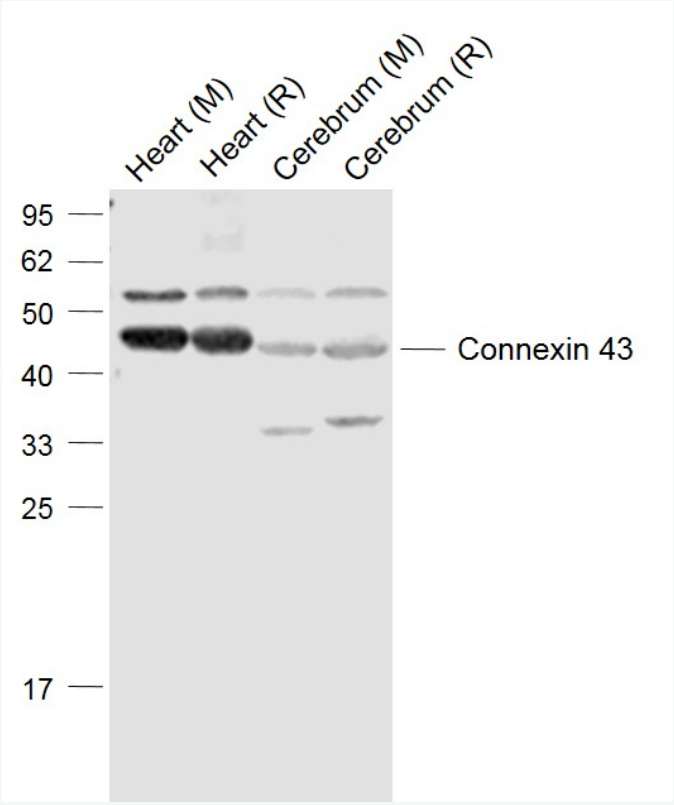
Product Picture



Sample:

Lane 1: Heart (Mouse) Lysate at 40 ug

Lane 2: Heart (Rat) Lysate at 40 ug

Lane 3: Cerebrum (Mouse) Lysate at 40 ug

Lane 4: Cerebrum (Rat) Lysate at 40 ug

Primary: Anti-Connexin 43 (SL0651R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 37-45 kD

Observed band size: 45 kD

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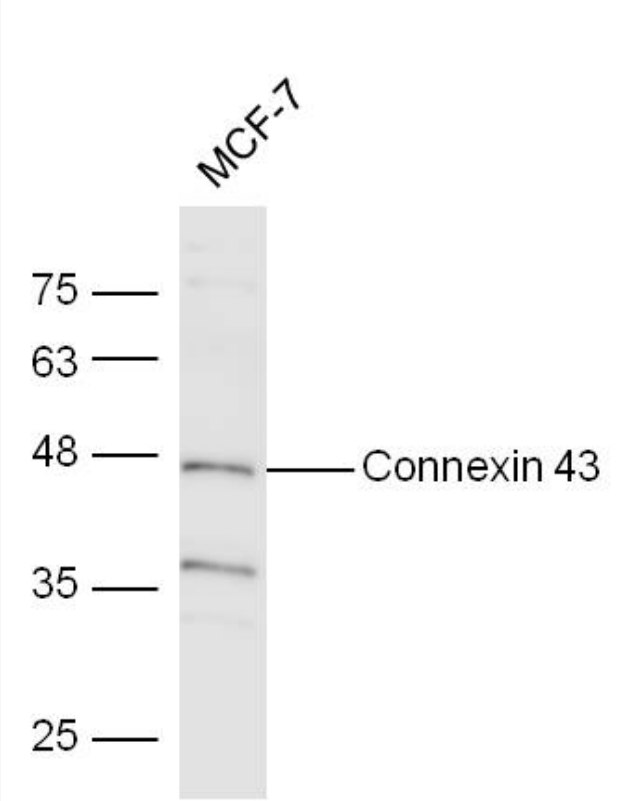

Sample: Mcf-7 Cell Lysate at 40 ug

Primary: Anti-Connexin(SL0651R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/10000 dilution

Predicted band size: 42 kD

Observed band size: 43 kD

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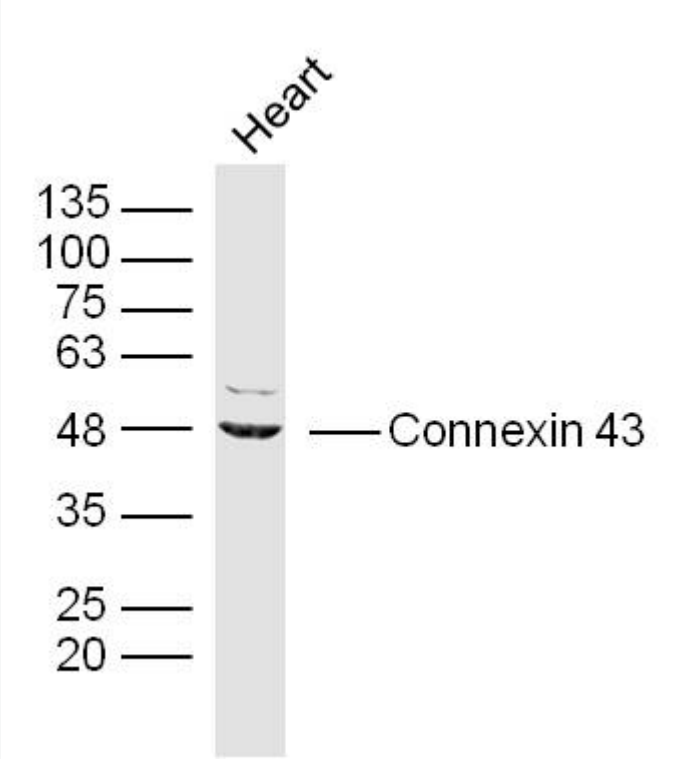

Sample:

Heart (Mouse) Lysate at 40 ug

Primary: Anti- Connexin 43(SL0651R)at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 42 kD

Observed band size: 42/48 kD

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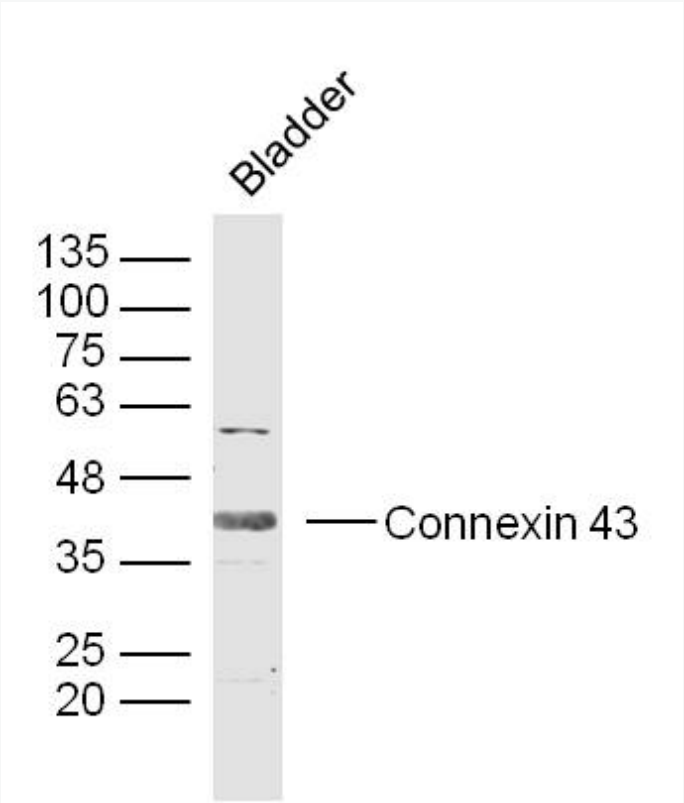

Sample:

Bladder (Mouse) Lysate at 40 ug

Primary: Anti- Connexin 43(SL0651R)at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 42 kD

Observed band size: 42/48 kD

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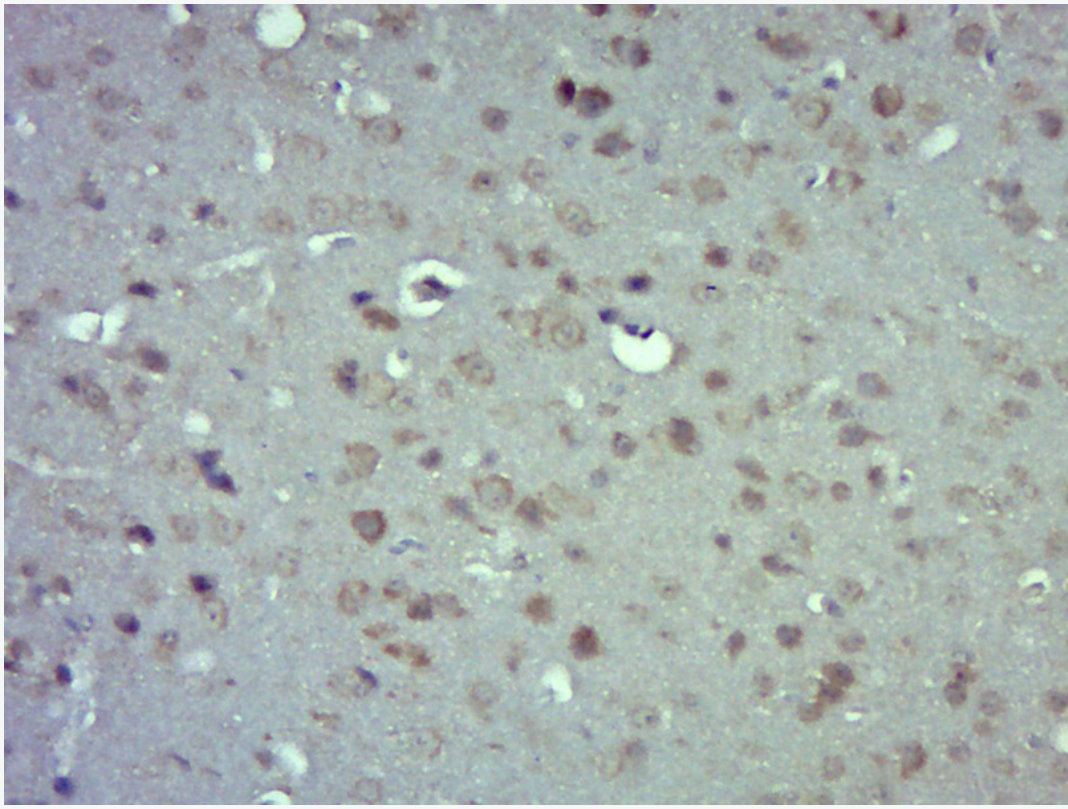

Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in soc
buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min
Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Connexin
Polyclonal Antibody, Unconjugated (SL0651R) at 1:400 overnight at 4°C, followed by operat
according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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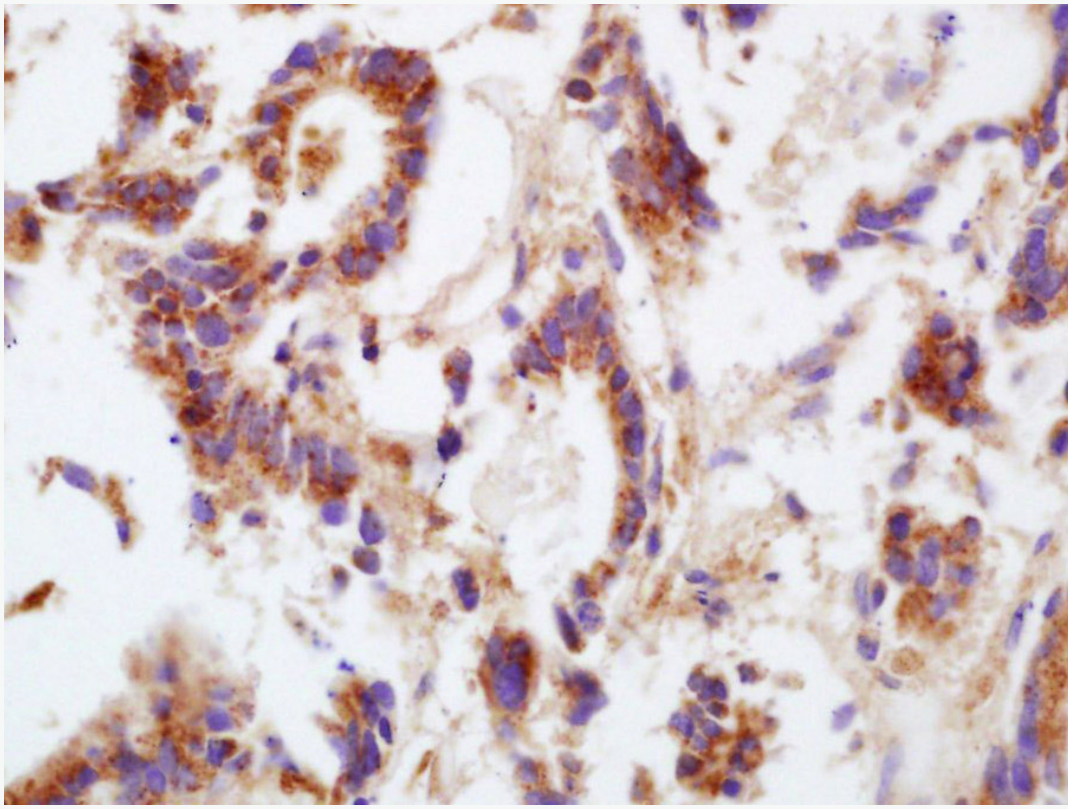

Paraformaldehyde-fixed, paraffin embedded (Human stomach cancer); Antigen retrieval by bo
sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen perox
minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (C
43) Polyclonal Antibody, Unconjugated (SL0651R) at 1:200 overnight at 4°C, followed by op
according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

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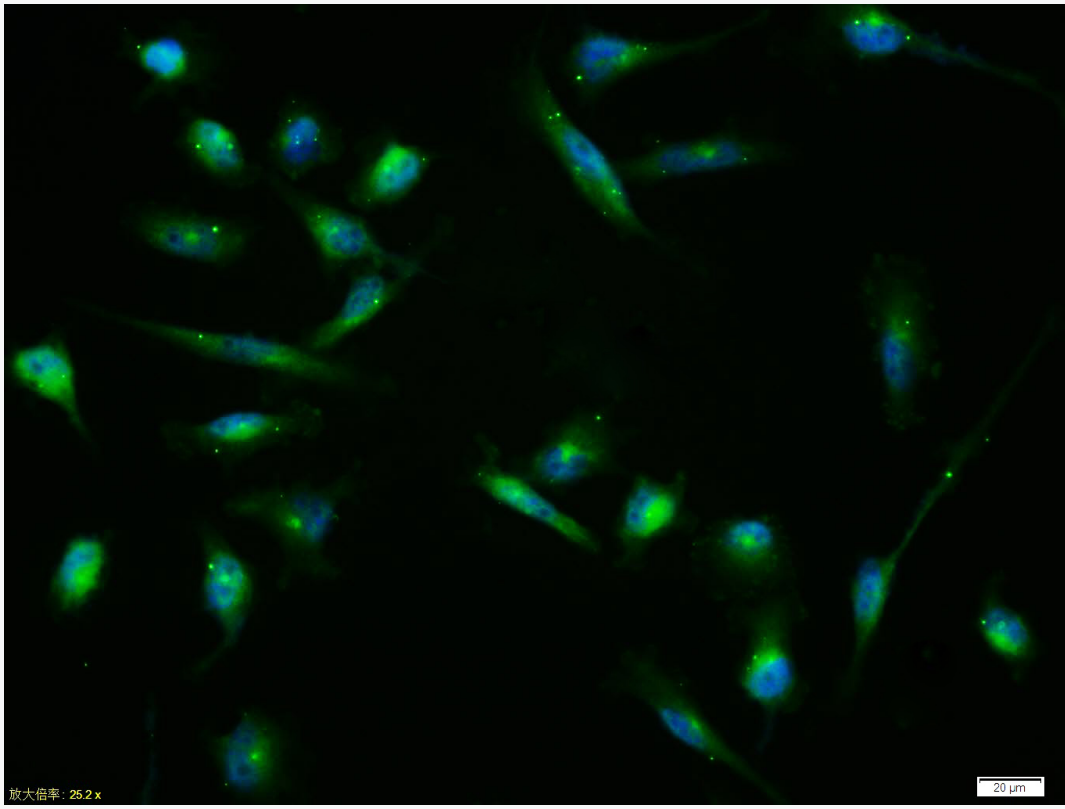

Tissue/cell:U-251 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20

Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (

43) polyclonal Antibody, Unconjugated (SL0651R) 1:100, 90 minutes at 37°C; followed by a

conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) v

stain the cell nuclei.

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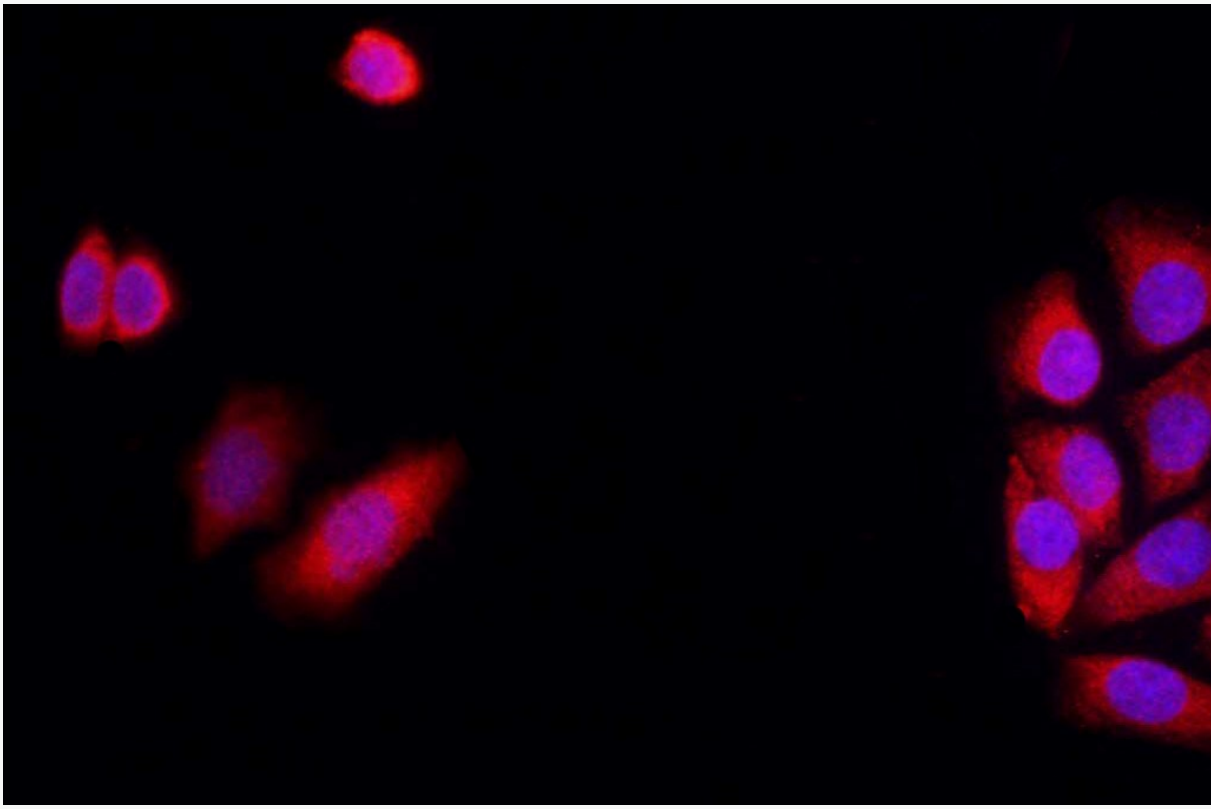

Tissue/cell: MCF7 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20

Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (C

43) polyclonal Antibody, Unconjugated (SL0651R) 1:100, 90 minutes at 37°C; followed by a

conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) w

stain the cell nuclei.

Tissue/cell: rat heart tissue;4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (Human,Mouse,Rat(predicted:Chicken,Dog,Cow)1M, pH 6.0

bathing for 15min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-Connexin 43 Polyclonal Antibody, Unconjugated(SL0651R) 1:200, overnigh

The secondary antibody was Goat Anti-Rabbit IgG, PE conjugated(SL0295G-PE)used at 1:20

for 40 minutes at 37°C.

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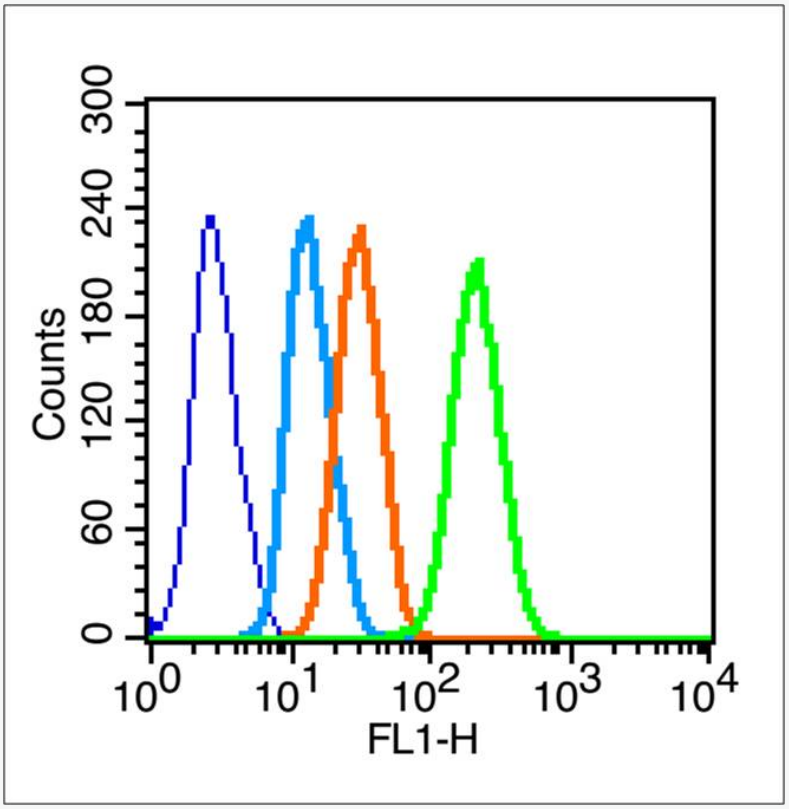

Blank control (blue line):Hela(blue).

Primary Antibody (green line): Rabbit Anti-Connexin 43 antibody(SL0651R)

Dilution: 1μg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): F(ab')2 fragment goat anti-rabbit IgG-FITC.

Dilution: 1μg /test.

Protocol

The cells were fixed with 2% paraformaldehyde (10 min) , then permeabilized with 90% ice-c

methanol for 30 min on ice.Cells stained with Primary Antibody for 30 min at room temperatur

were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protei

interactions followed by the antibody for 15 min at room temperature. The secondary antibody

min at room temperature. Acquisition of 20,000 events was performed.