SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
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Rabbit Anti-GLUT4 antibody

SL0384R

Product Name	GLUT4
Chinese Name	葡萄糖 Transporter4 抗体
Alias	insulin-responsive; Glucose transporter GLUT 4; Glucose Transporter GLUT4; Glucose transpo Glucose transporter type 4 insulin responsive; GLUT 4; GLUT-4; GTR4_HUMAN; kug; SLC 2A solute carrier family 2 (facilitated glucose transporter) member 4; Solute carrier family 2, facilita transporter member 4.
Research Area	Tumour Cardiovascular immunology Signal transduction Stem cells Diabetes
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, Mouse, Rat, (predicted: Dog, Pig, Cow, Rabbit, Sheep,)
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	54kDa
Cellular localization	cytoplasmic The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human GLUT4: 401-509/509 <Cytoplasmic>
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 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

GLUT4 is the facilitated glucose transporter expressed exclusively in adipocytes and muscle cell known as the "insulin-responsive" glucose transporter. GLUT4 translocates from an ill-defined i compartment to the plasma membrane in response to insulin. The total cellular content of GLUT significantly decreased in adipose cells from many patients with Type II diabetes mellitus, and a some types of experimental diabetes.

Function:
Insulin-regulated facilitative glucose transporter.

Subcellular Location:
Endomembrane system. Cytoplasm > perinuclear region. Localizes primarily to the perinuclear r undergoing continued recycling to the plasma membrane where it is rapidly reinternalized. The c internalization motif is critical for intracellular sequestration.

Tissue Specificity:
Skeletal and cardiac muscles; brown and white fat.

Post-translational modifications:
Sumoylated.

Product Detail

DISEASE:
Defects in SLC2A4 may be a cause of noninsulin-dependent diabetes mellitus (NIDDM) [MIM: Defects in SLC2A4 may be a cause of certain post-receptor defects in NIDDM. The variant in pos is found in a small number of NIDDM patients, but seems not to be found in nondiabetic subject

Similarity:
Belongs to the major facilitator superfamily. Sugar transporter (TC 2.A.1.1) family. Glucose tran subfamily.

SWISS:
P14672

Gene ID:
6517

Database links:

Entrez Gene: 282359 Cow

Entrez Gene: 6517 Human

Entrez Gene: 20528 Mouse

Entrez Gene: 25139 Rat

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Omim: 138190 Human

SwissProt: Q27994 Cow

SwissProt: Q29RP5 Cow

SwissProt: P14672 Human

SwissProt: P14142 Mouse

SwissProt: P19357 Rat

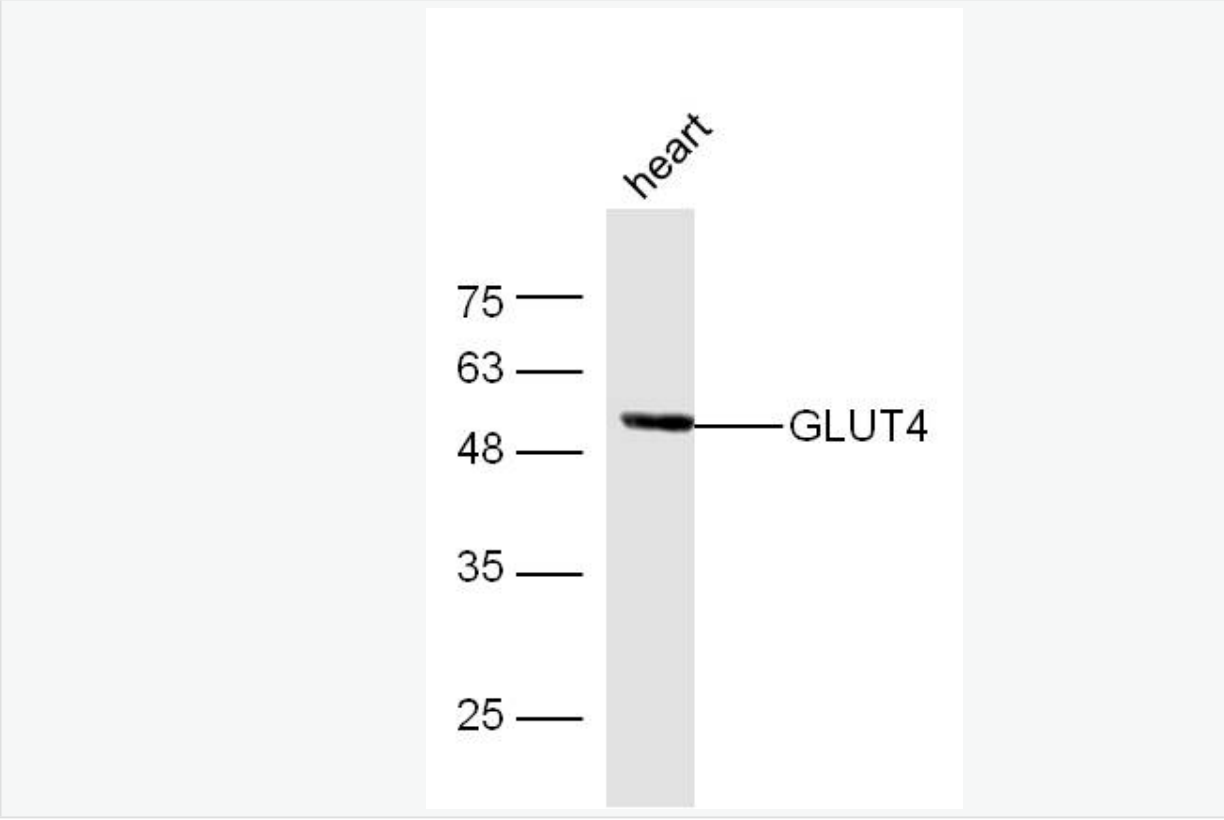
Unigene: 380691 Human

Unigene: 10661 Mouse

Unigene: 1314 Rat

葡萄糖 Transporter-4 是一种十分重要的葡萄糖转运体,与胰岛素抵抗和 2 型 Diabetes 密切相
Transporter4 在细胞内部和 The cell membrane 之间循环流动.实现对葡萄糖的转运需要葡萄
Transporter4 自身的转位和活化.葡萄糖 Transporter4 与肥胖、Tumour 相关联.
GLUT-2 和 GLUT-4 蛋白这两个葡萄糖运载体的研究对于 Diabetes 的胰岛素释放障碍和胰
重要意义.

Product Picture



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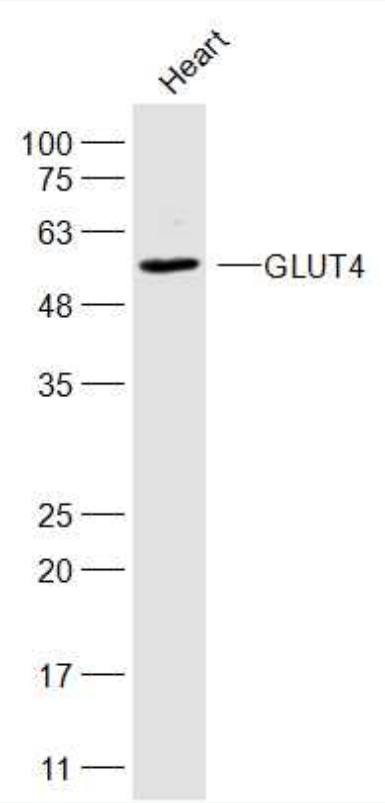
Sample: Heart (Mouse) Lysate at 40 ug

Primary: Anti- GLUT4 (SL0384R) at 1/300 dilution

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

Predicted band size: 54 kD

Observed band size: 54 kD



Sample:

Heart(Rat) Cell Lysate at 40 ug

Primary: Anti-GLUT4 (SL0384R) at 1/300 dilution

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

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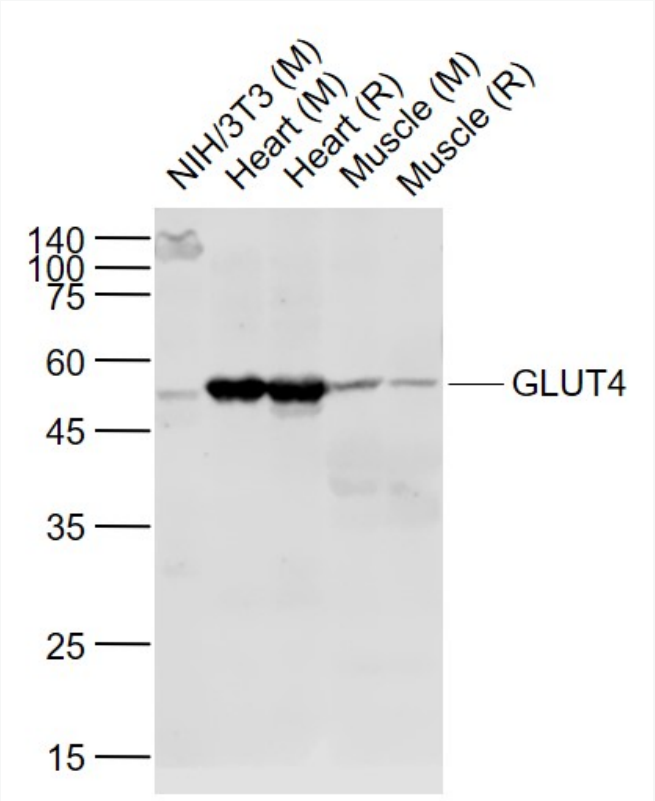
Predicted band size: 54 kD

Observed band size: 54 kD



Sample:

Lane 1: NIH/3T3 (Mouse) Cell Lysate at 30 ug

Lane 2: Heart (Mouse) Lysate at 40 ug

Lane 3: Heart (Rat) Lysate at 40 ug

Lane 4: Muscle (Mouse) Lysate at 40 ug

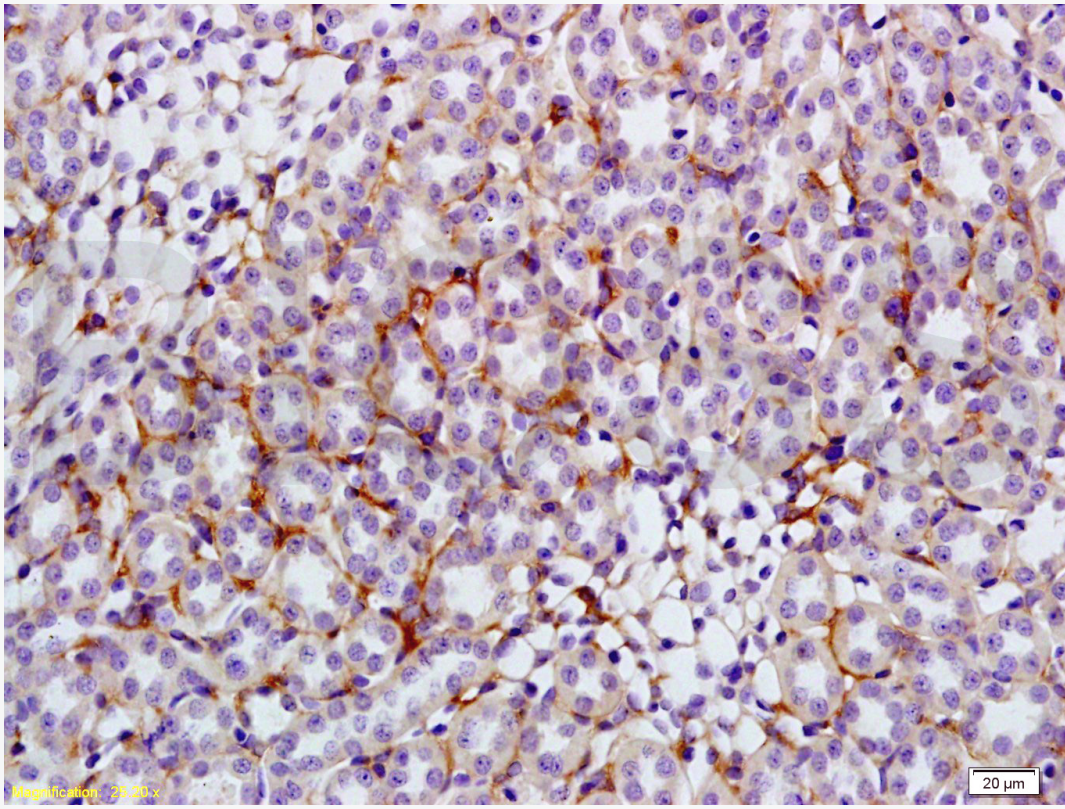
Lane 5: Muscle (Rat) Lysate at 40 ug

Primary: Anti-GLUT4 (SL0384R) at 1/1000 dilution

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

Predicted band size: 51 kD

Observed band size: 51 kD



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

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous

by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ fo

Incubation: Anti-GLUT4 Polyclonal Antibody, Unconjugated(SL0384R) 1:200, overnight at 4

followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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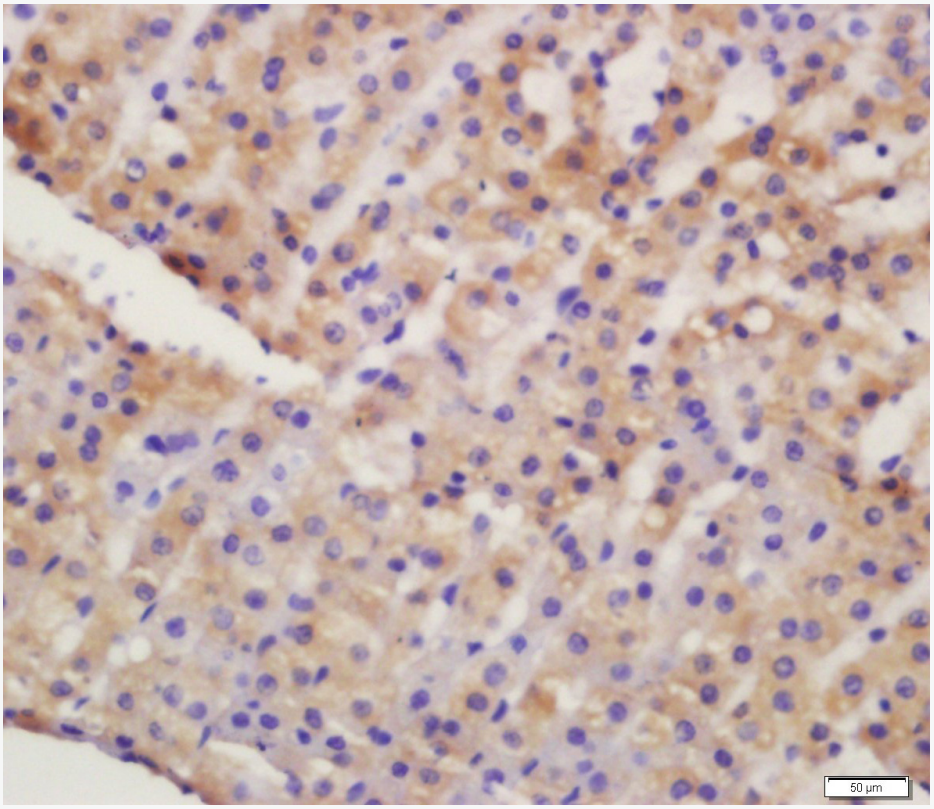

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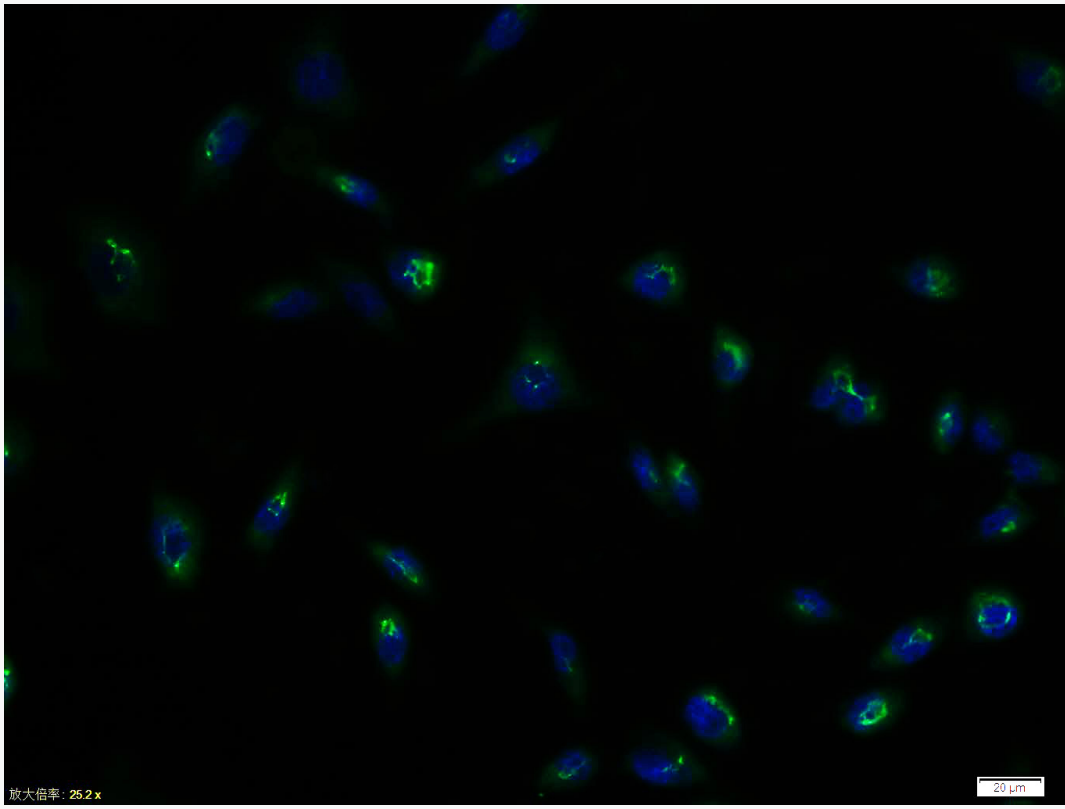


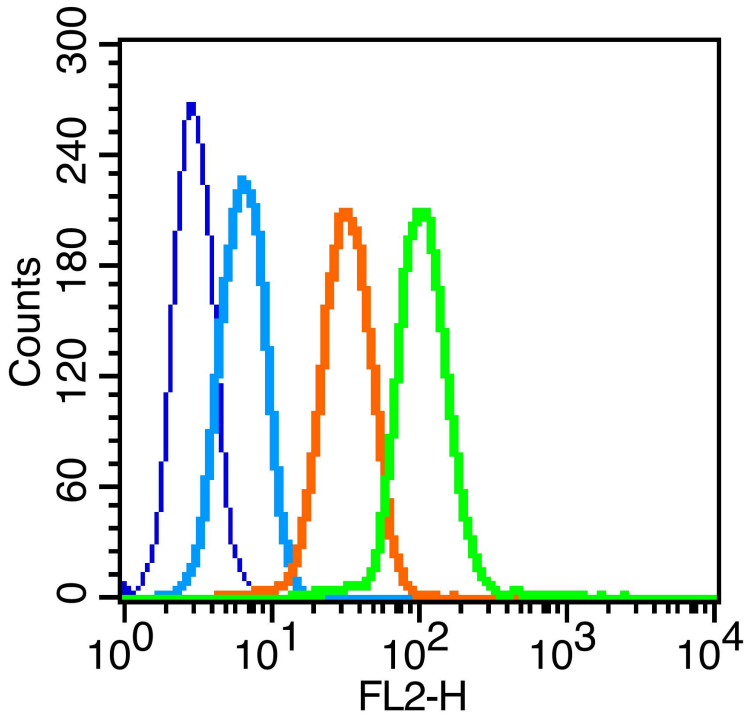
Tissue/cell: NIH/3T3 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for

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

polyclonal Antibody, Unconjugated (SL0384R) 1:100, 90 minutes at 37°C; followed by a FIT

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

stain the cell nuclei.



Blank control (blue line): K562 (blue).

Primary Antibody (green line): Rabbit Anti-GLUT4 antibody (SL0384R)

Dilution: 1μg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE

Dilution: 1μg /test.

Protocol

The cells were fixed with 70% ethanol (overnight at 4°C) and then permeabilized with 0.1% P

for 20 min at room temperature. Cells stained with Primary Antibody for 30 min at room tempe

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

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.