

Rabbit Anti-OAT1 / SLC22A6 antibody

SL0606R

Product Name OAT1 / SLC22A6

Chinese Name 阴离子 Transporter-1 抗体

Alias Organic anion transporter 1; OAT1; OAT-1; solute carrier family 22 (organic anion transporter), member 6; FLJ55736; HOAT1; MGC124962; MGC45260; mOat1; NKT; Oat; Orct11; PAHT; ROAT1; SLC22A6; S22A6_HUMAN.

Research Area Transporter

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human, Mouse, Rat,

Applications WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 62kDa

Cellular localization The cell membrane

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human OCT-1: 285-550/550 <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°C. 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 diagnostic applications.

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Recent advances in molecular biology have identified three organic anion transporter families: the organic anion transporter (OAT) family encoded by SLC22A, the organic anion transporting peptide (OATP) family encoded by SLC21A (SLCO), and the multidrug resistance-associated protein (MRP) family encoded by ABCB. These families play critical roles in the transepithelial transport of organic anions in the kidneys as well as in other tissues such as the liver and brain. Among these families, the OAT family plays the central role in renal organic anion transport. Knowledge of these three families at the molecular level, such as substrate selectivity, tissue distribution, and gene localization, is rapidly increasing.

Function:

Involved in the renal elimination of endogenous and exogenous organic anions. Functions as organic anion exchanger when the uptake of one molecule of organic anion is coupled with an efflux of one molecule of endogenous dicarboxylic acid (glutarate, ketoglutarate, etc). Mediates the sodium-independent uptake of 2,3-dimercapto-1-propanesulfonic acid (DMPS) (By similarity). Mediates the sodium-independent uptake of p-aminohippurate (PAH), ochratoxin (OTA), acyclovir (ACV), 3'-azido-3'-deoxythymidine (AZT), cimetidine (CMD), 2,4-dichloro-phenoxyacetate (2,4-D), hippurate (HA), indoleacetate (IA), indoxyl sulfate (IS) and 3-carboxy-4-methyl-5-propyl-2-furanpropionate (CMPF), cidofovir, adefovir, 9-(2-phosphonylmethoxyethyl) guanine (PMEG), 9-(2-phosphonylmethoxyethyl) diaminopurine (PMEDAP) and edaravone sulfate. PAH uptake is inhibited by p-chloromercuribenzenesulphonate (PCMBS), diethyl pyrocarbonate (DEPC), sulindac, diclofenac, carprofen, glutarate and okadaic acid (By similarity). PAH uptake is inhibited by benzothiazolylcysteine (BTC), S-chlorotrifluoroethylcysteine (CTFC), cysteine S-conjugates S-dichlorovinylcysteine (DCVC), furosemide, steviol, phorbol 12-myristate 13-acetate (PMA), calcium ionophore A23187, benzylpenicillin, furosemide, indomethacin, bumetamide, losartan, probenecid, phenol red, urate, and alpha-ketoglutarate.

Product Detail

Subcellular Location:

Cell membrane; Multi-pass membrane protein.

Tissue Specificity:

Strongly expressed in kidney and to a lower extent in liver, skeletal muscle, brain and placenta. Found at the basolateral membrane of the proximal tubule.

Post-translational modifications:

Glycosylated. Glycosylation at Asn-113 may occur at a secondary level. Glycosylation is necessary for proper targeting of the transporter to the plasma membrane.

Similarity:

Belongs to the major facilitator (TC 2.A.1) superfamily. Organic cation transporter (TC 2.A.1.19) family.

SWISS:

Q4U2R8

Gene ID:

9356

Database links:

[Entrez Gene: 9356](#) Human

[Entrez Gene: 18399](#) Mouse

[Entrez Gene: 29509](#) Rat

[Omim: 607582](#) Human

[SwissProt: Q4U2R8](#) Human

[SwissProt: Q8VC69](#) Mouse

[SwissProt: O35956](#) Rat

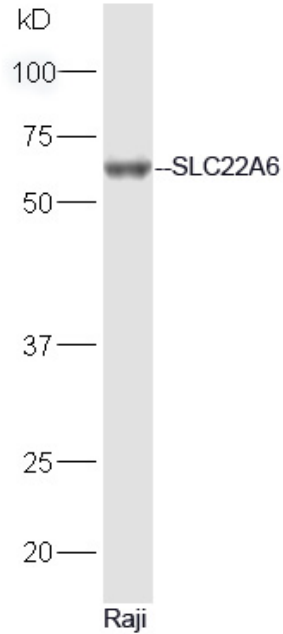
[Unigene: 369252](#) Human

[Unigene: 30090](#) Mouse

[Unigene: 87849](#) Rat

OAT1 阴离子 Transporter 是一类分布广泛的膜蛋白，通过介导 $\text{Cl}^- / \text{HCO}_3^-$ 跨膜转运参与细胞内 pH、细胞体积及细胞内氯离子浓度的调节。SL0607R 为抗大、小鼠。

**Product
Picture**



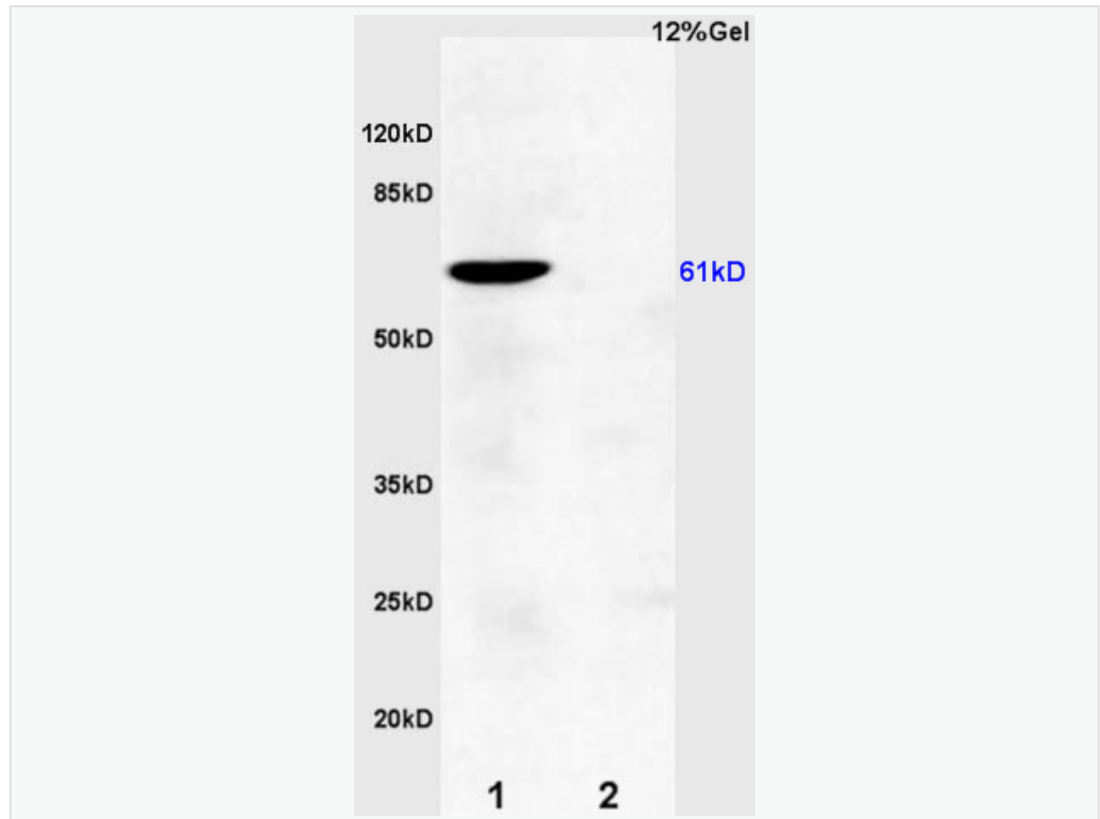
Sample: Raji Cell lysate at 30 ug;

Primary: Anti-SLC22A6 (SL0606R) at 1:300 dilution;

Secondary: HRP conjugated Goat-Anti-rabbit IgG(SL0295G-HRP) at 1: 5000 dilution;

Predicted band size: 62 kD

Observed band size: 62 kD



Sample:

Kidney(Human) lysate at 30ug;

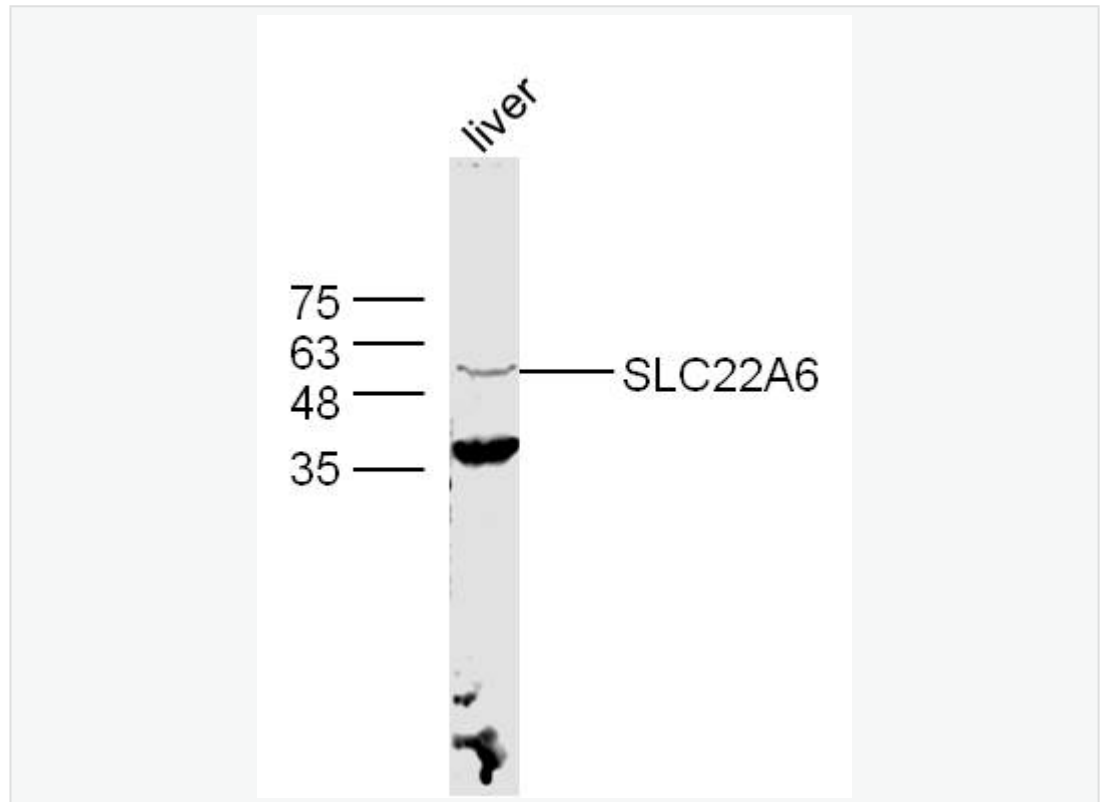
Brain(Rat) lysate at 30ug;

Primary: Anti-OAT-1/SLC22A6(human) (SL0606R) at 1:200 dilution;

Secondary: HRP conjugated Goat Anti-Rabbit IgG(SL0295G-HRP) at 1: 3000 dilution;

Predicted band size : 62kD

Observed band size : 61kD



Sample:

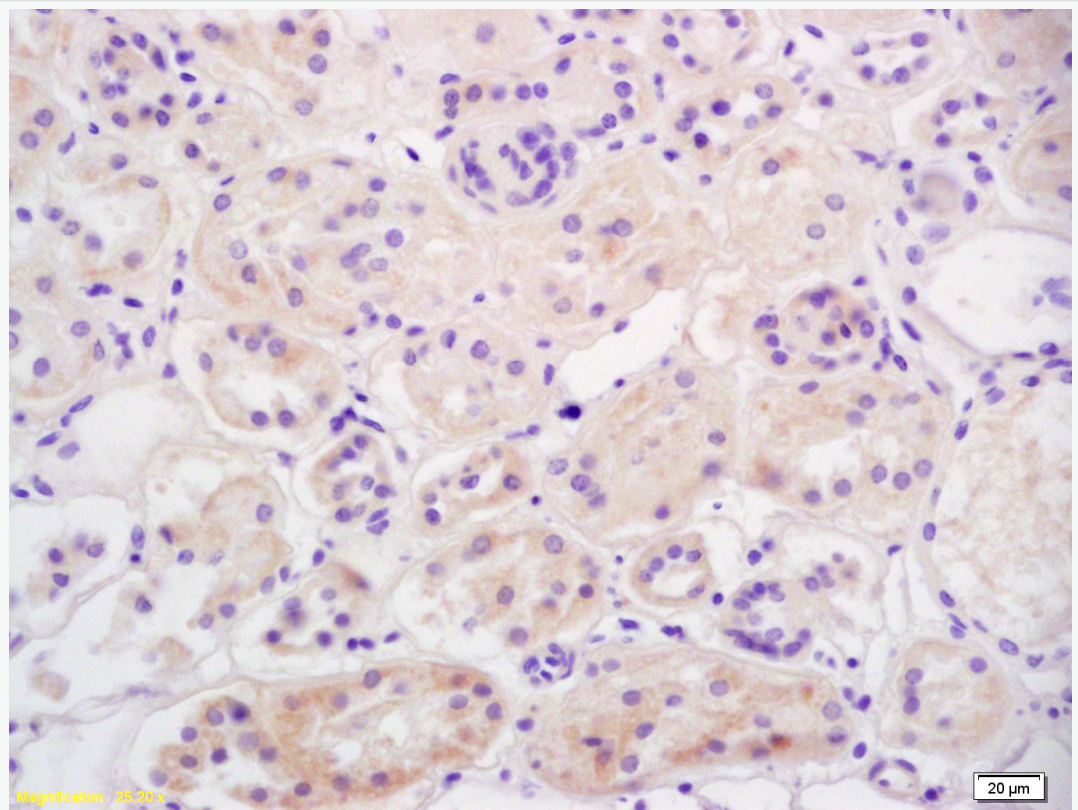
Liver (Mouse) Lysate at 40 ug

Primary: Anti-SLC22A6 (SL0606R) at 1/300 dilution

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

Predicted band size: 62 kD

Observed band size: 62 kD



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

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-OAT-1/SLC22A6(human) Polyclonal Antibody,

Unconjugated(SL0606R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining