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Rabbit Anti-ADRB2 antibody

SL0947R

Product Name	ADRB2
Chinese Name	肾上腺素能受体 β2/β2-AR 抗体
Alias	Beta 2-adrenergic receptor; beta 2 Adrenergic Receptor; ADRB2R; ADRBR; ADRB2_HUMAN; Adrenergic beta 2 receptor surface; B2AR; BAR; Beta 2 adrenoreceptor; BETA2AR; Catecholamine receptor; beta2-adrenergic receptor. β2-adrenergic receptor;
Research Area	Tumour Cell biology Neurobiology The cell membrane 受体
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human Mouse Rat
Applications	WB=1:500-2000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	46kDa
Cellular localization	cytoplasmic The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human ADRB2: 201-300/418 <Cytoplasmic>
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	Human,Mouse,Rat1M TBS(pH7.4) with 1% BSA, Human,Mouse,Rat3% 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 diagnostic applications.

PubMed PubMed

Product Detail

Beta 2 Adrenergic Receptor is a member of the G protein coupled receptor superfamily. This receptor is directly associated with one of its ultimate effectors, the class C L type calcium channel Ca(V)1.2. This receptor channel complex also contains a G protein, an adenylyl cyclase, cAMP dependent kinase, and the counterbalancing phosphatase, PP2A. The assembly of the signaling complex provides a mechanism that ensures specific and rapid signaling by this G protein coupled receptor. This gene contains no introns in either its coding or untranslated sequences. Different polymorphic forms, point mutations, and/or downregulation of this gene are associated with nocturnal asthma, obesity and type 2 diabetes. Expression of the beta 2 Adrenergic Receptor has been reported in adipose, blood, brain, heart, lung, nose, pancreas, skeletal muscle, skin, and vessel.

Function:
Beta-adrenergic receptors mediate the catecholamine-induced activation of adenylate cyclase through the action of G proteins. The beta-2-adrenergic receptor binds epinephrine with an approximately 30-fold greater affinity than it does norepinephrine.

Subunit:
Binds SLC9A3R1 and GPRASP1. Interacts with ARRB1 and ARRB2. Interacts with SRC, USP20 and USP33. Interacts with VHL; the interaction, which is increased on hydroxylation of ADRB2, ubiquitinates ADRB2 leading to its degradation. Interacts with EGLN3; the interaction hydroxylates ADRB2 facilitating VHL-E3 ligase-mediated ubiquitination.

Subcellular Location:
Cell membrane; Multi-pass membrane protein. Note=Colocalizes with VHL at the cell membrane.

Post-translational modifications:
Palmitoylated; may reduce accessibility of Ser-345 and Ser-346 by anchoring Cys-341 to the plasma membrane. Agonist stimulation promotes depalmitoylation and further allows Ser-345 and Ser-346 phosphorylation.
Phosphorylated by PKA and BARK upon agonist stimulation, which mediates homologous desensitization of the receptor. PKA-mediated phosphorylation seems to facilitate phosphorylation by BARK.
Phosphorylation of Tyr-141 is induced by insulin and leads to supersensitization of the receptor.
Polyubiquitinated. Agonist-induced ubiquitination leads to sort internalized receptors to the lysosomes for degradation. Deubiquitination by USP20 and USP33, leads to ADRB2 recycling and resensitization after prolonged agonist stimulation. USP20 and USP33 are constitutively associated and are dissociated immediately after agonist stimulation. Ubiquitination by the VHL-E3 ligase complex is oxygen-dependent. Hydroxylation by EGLN3 occurs only under normoxia and increases the interaction

with VHL and the subsequent ubiquitination and degradation of ADRB2.

Similarity:
Belongs to the G-protein coupled receptor 1 family.
Adrenergic receptor subfamily. ADRB2 sub-subfamily.

SWISS:
P07550

Gene ID:
154

Database links:

Entrez Gene: 154 Human

Entrez Gene: 11555 Mouse

Entrez Gene: 24176 Rat

Omim: 109690 Human

SwissProt: P07550 Human

SwissProt: P18762 Mouse

SwissProt: P10608 Rat

Unigene: 2551 Human

Unigene: 5598 Mouse

Unigene: 10206 Rat

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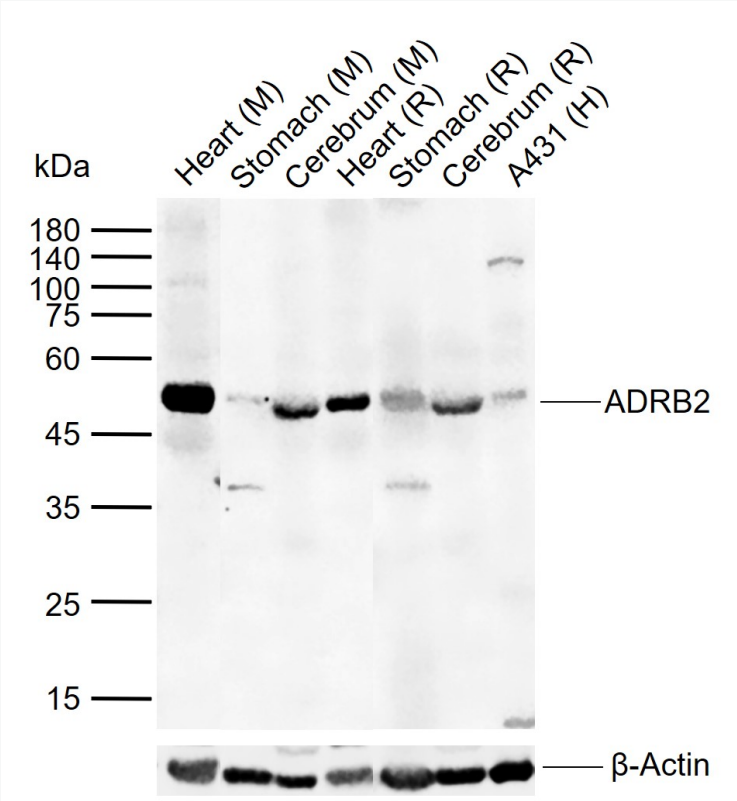
Product Picture



Sample:

Lane 1: Mouse Heart tissue lysates

Lane 2: Mouse Stomach tissue lysates

Lane 3: Mouse Cerebrum tissue lysates

Lane 4: Rat Heart tissue lysates

Lane 5: Rat Stomach tissue lysates

Lane 6: Rat Cerebrum tissue lysates

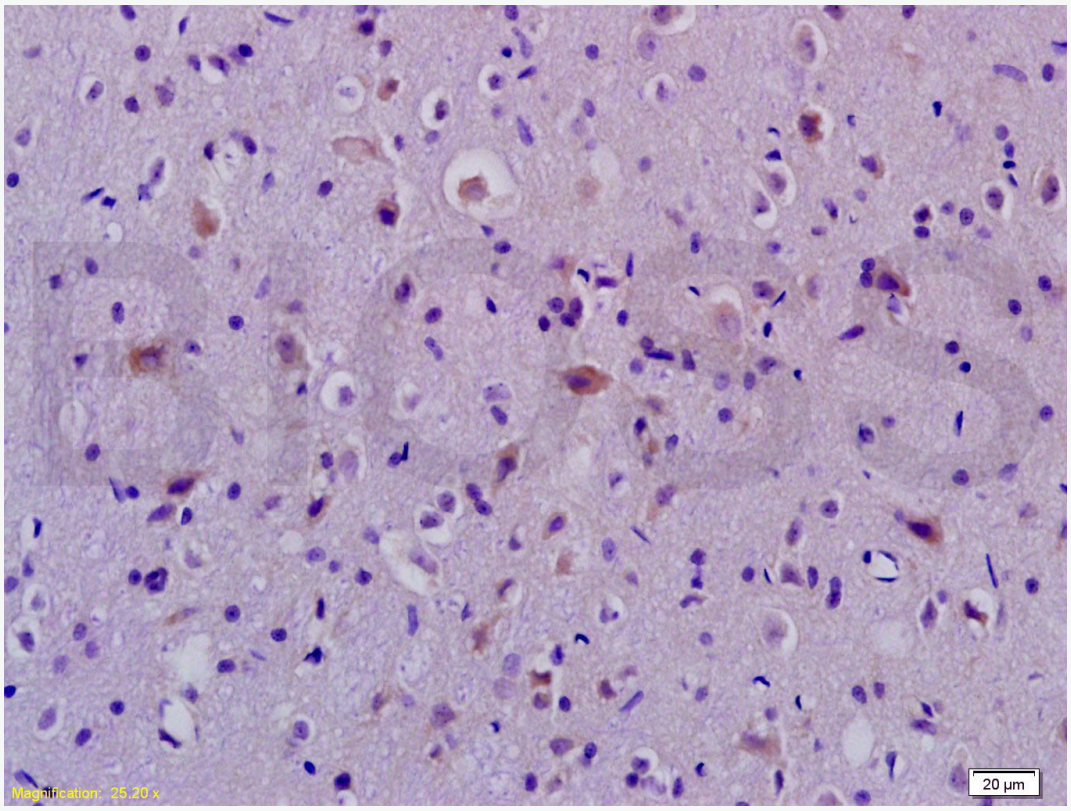
Lane 7: Human A431 cell lysates

Primary: Anti-TBX1 (SL0947R) at 1/1000 dilution

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

Predicted band size: 46 kDa

Observed band size: 50 kDa



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (Human,Mouse,Rat1M, 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℃ for 20 min; Incubation: Anti-ADRB2 Polyclonal Antibody, Unconjugated(SL0947R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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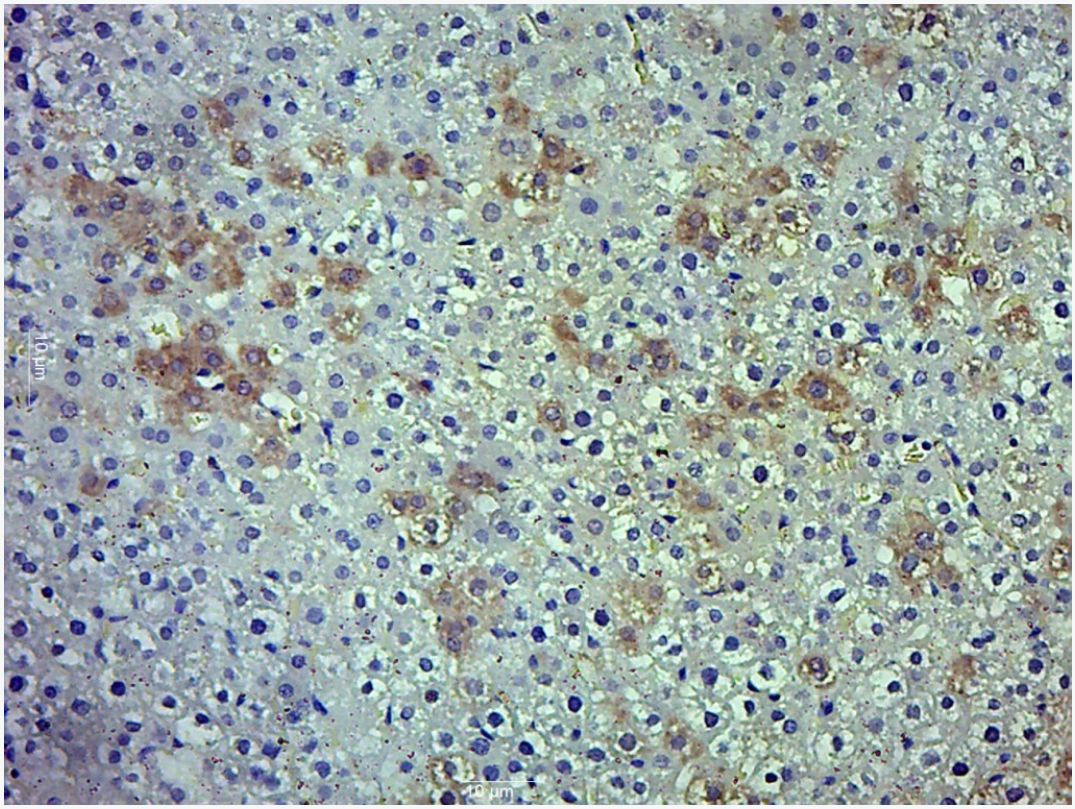
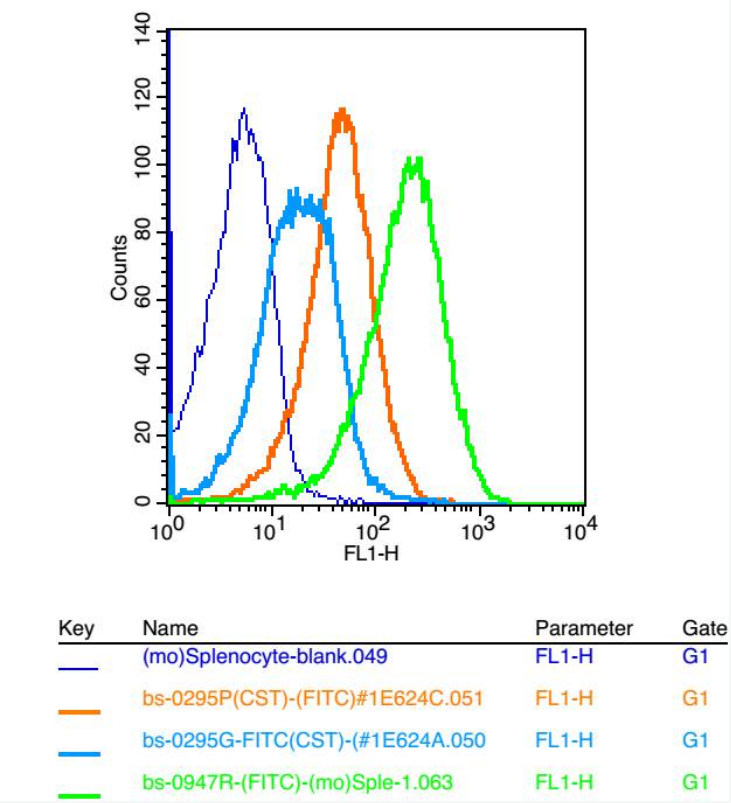


Paraformaldehyde-fixed, paraffin embedded (Rat liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ADRB2) Polyclonal Antibody, Unconjugated (SL0947R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Positive control: (mo)Splenocytes(2% Paraformaldehyde-fixed)

Isotype Control Antibody

Antibody: Rabbit IgG; Supplier: Cell Signaling Technology; Dilution: 1µg in 100 µl 1 X PBS containing 0.5% BSA

Secondary Antibody

Antibody: Goat anti-rabbit IgG-FITC; Supplier: Cell Signaling Technology; Dilution: 1:200 in 1 X PBS containing 0.5% BSA

Primary Antibody

Supplier: Bioss; Supplier catalog number: SL0947R; Dilution: 1µg in 100 µl 1X

PBS containing 0.5% BSA