SunLong Biotech Co.,LTD
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Rabbit Anti-ADRA1A antibody

SL0600R

Product Name	ADRA1A
Chinese Name	alpha 1 肾上腺素能受体 A 抗体
Alias	ADA1A_HUMAN; Adrenergic alpha 1A receptor; Adrenergic alpha 1C receptor; Adrenergic alpha 1D receptor; alpha 1 Adrenergic Receptor; Alpha 1A adrenergic receptor; Alpha-1A adrenergic receptor; Alpha-1A adrenoreceptor; Alpha-1C adrenergic receptor; Alpha-adrenergic receptor 1c; ADRA1A; ADRA1C; Alpha 1A adrenoceptor; alpha-1A adrenergic receptor isoform 1; adrenergic, alpha-1A-, receptor variant 1; adrenergic, alpha-1A-, receptor variant 3; adrenergic, alpha-1A-, receptor variant 5; adrenergic, alpha-1A-, receptor variant 8; G protein coupled receptor; alpha-1A adrenoceptor; ADRA1L1; ALPHA1AAR.
Research Area	Cell biology Neurobiology The cell membrane 受体
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse,Rat(predicted:Human,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep,GuineaPig)
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	51kDa
Cellular localization	The nucleus The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Alpha-1A adrenergic receptor: 201-300/466
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer	Mouse,Rat(predicted:Human,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep,GuineaPig)1M

Solution TBS(pH7.4) with 1% BSA, Mouse,Rat(predicted:Human,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep,GuineaPig)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 diagnostic applications.

PubMed PubMed

Product Detail

Alpha-1-adrenergic receptors (alpha-1-ARs) are members of the G protein-coupled receptor superfamily. They activate mitogenic responses and regulate growth and proliferation of many cells. There are 3 alpha-1-AR subtypes: alpha-1A, -1B and -1D, all of which signal through the Gq/11 family of G-proteins and different subtypes show different patterns of activation. This gene encodes alpha-1A-adrenergic receptor. Alternative splicing of this gene generates four transcript variants, which encode four different isoforms with distinct C-termini but having similar ligand binding properties. [provided by RefSeq, Jul 2008].

Function:
This alpha-adrenergic receptor mediates its action by association with G proteins that activate a phosphatidylinositol-calcium second messenger system. Its effect is mediated by G(q) and G(11) proteins. Nuclear ADRA1A-ADRA1B heterooligomers regulate phenylephrine(PE)-stimulated ERK signaling in cardiac myocytes.

Subunit:
Homo- and heterooligomer. Heterooligomerizes with ADRA1B homooligomers in cardiac myocytes.

Subcellular Location:
Nucleus membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Note=Location at the nuclear membrane facilitates heterooligomerization and regulates ERK-mediated signaling in cardiac myocytes. Colocalizes with GNAQ, PLCB1 as well as LAP2 at the nuclear membrane of cardiac myocytes.

Tissue Specificity:
Expressed in heart, brain, liver and prostate, but not in kidney, lung, adrenal, aorta and pituitary. Within the prostate, expressed in the apex, base, periurethral and lateral lobe. Isoform 4 is the most abundant isoform expressed in the prostate with high levels also detected in liver and heart.

Post-translational modifications:
C-terminal Ser or Thr residues may be phosphorylated.

Similarity:
Belongs to the G-protein coupled receptor 1 family. Adrenergic receptor subfamily. ADRA1A sub-subfamily.

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SWISS:
P35348

Gene ID:
148

Database links:

Entrez Gene: 148 Human

Entrez Gene: 11549 Mouse

Entrez Gene: 29412 Rat

Omim: 104221 Human

SwissProt: P35348 Human

SwissProt: P97718 Mouse

SwissProt: P43140 Rat

Unigene: 52931 Human

Unigene: 709175 Human

Unigene: 57064 Mouse

Unigene: 9991 Rat

ADRA1 肾上腺素能 α1 受体位于突触后，在血管平滑肌上，兴奋时可使血管收缩; alpha 1-adrenergic receptor 有兴奋效应也有抑制效应。肾上腺素能受体又可分为 α 和 β 两种。alpha 受体与儿茶酚胺结合后，主要是兴奋平滑肌，如血管收缩、子宫收缩和瞳孔开张肌收缩等；但也有抑制作用，如使小肠平滑肌舒张。β 受体又可分为 β1 和 β2 两个亚型.

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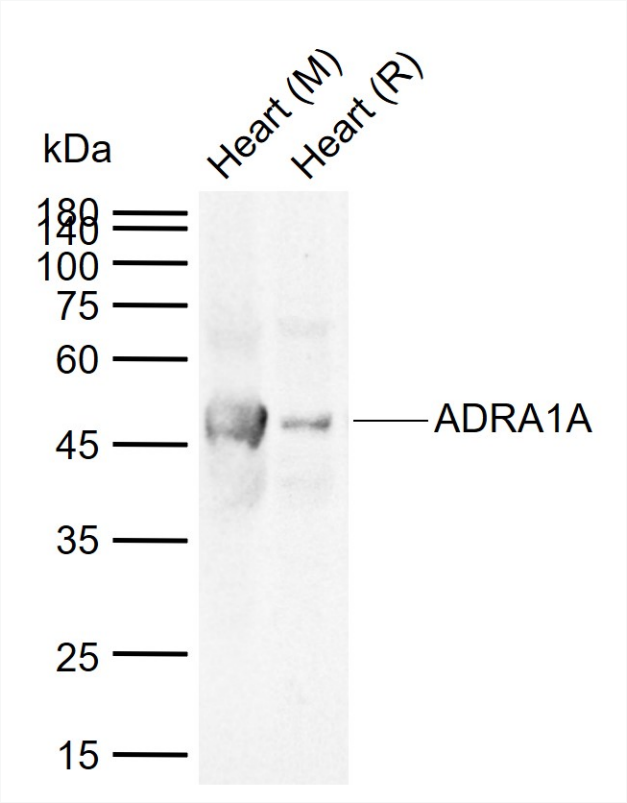
Product Picture



Sample:

Lane 1: Mouse Heart tissue lysates

Lane 2: Rat Heart tissue lysates

Primary: Anti-ADRA1A (SL0600R) at 1/1000 dilution

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

Predicted band size: 51 kDa

Observed band size: 47 kDa

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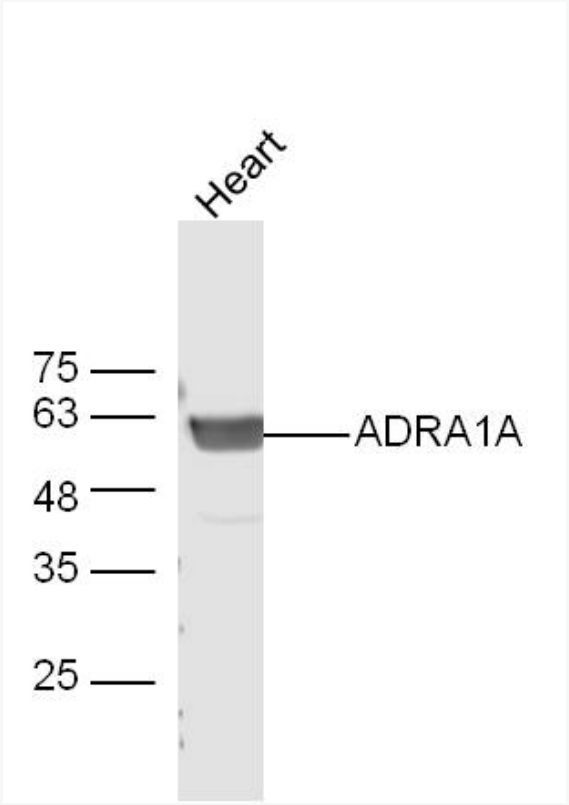

Sample:

Heart (Mouse) Lysate at 40 ug

Primary: Anti-ADRA1A (SL0600R) at 1/300 dilution

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

Predicted band size: 51 kD

Observed band size: 62 kD

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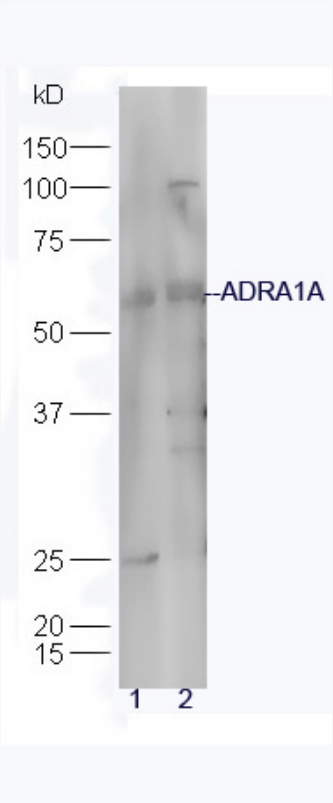

Sample:

U937 Cell (Human) Lysate at 30 ug

Raji Cell (Human) Lysate at 30 ug

Primary: Anti-ADRA1A (SL0600R) at 1/300 dilution

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

Predicted band size: 51 kD

Observed band size: 55 kD

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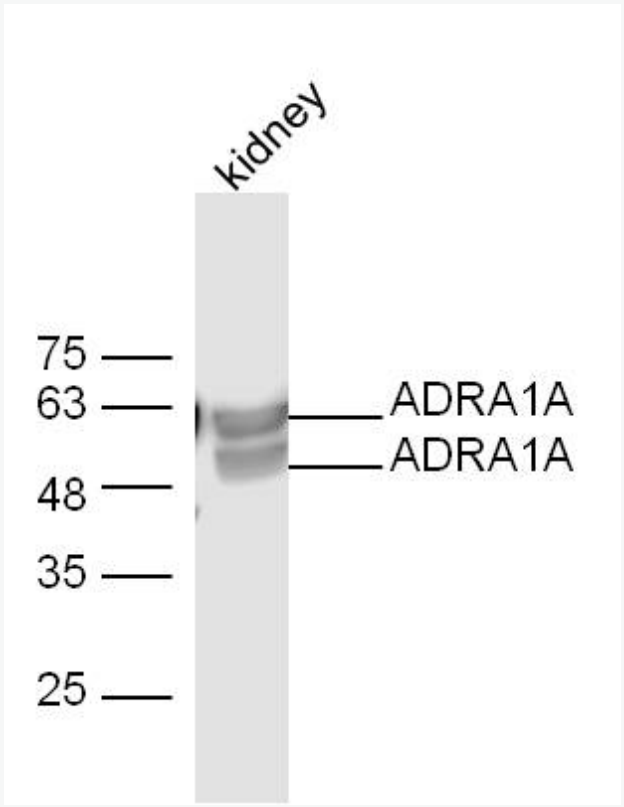

Sample:

kidney (Mouse) Lysate at 40 ug

Primary: Anti-ADRA1A (SL0600R) at 1/300 dilution

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

Predicted band size: 51 kD

Observed band size: 62 kD

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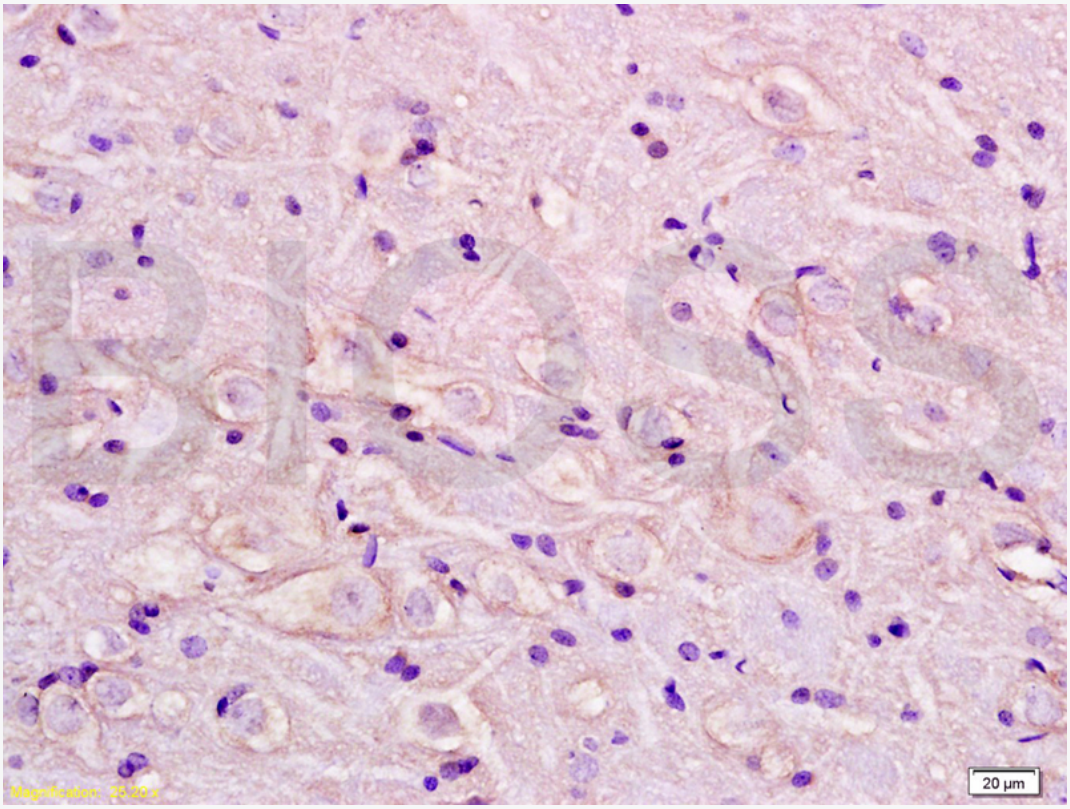

Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (Mouse,Rat(predicted:Human,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep,GuineaPig)1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-ADRA1/ADRA1B/alpha 1 Adrenergic Receptor Polyclonal Antibody, Unconjugated (SL0600R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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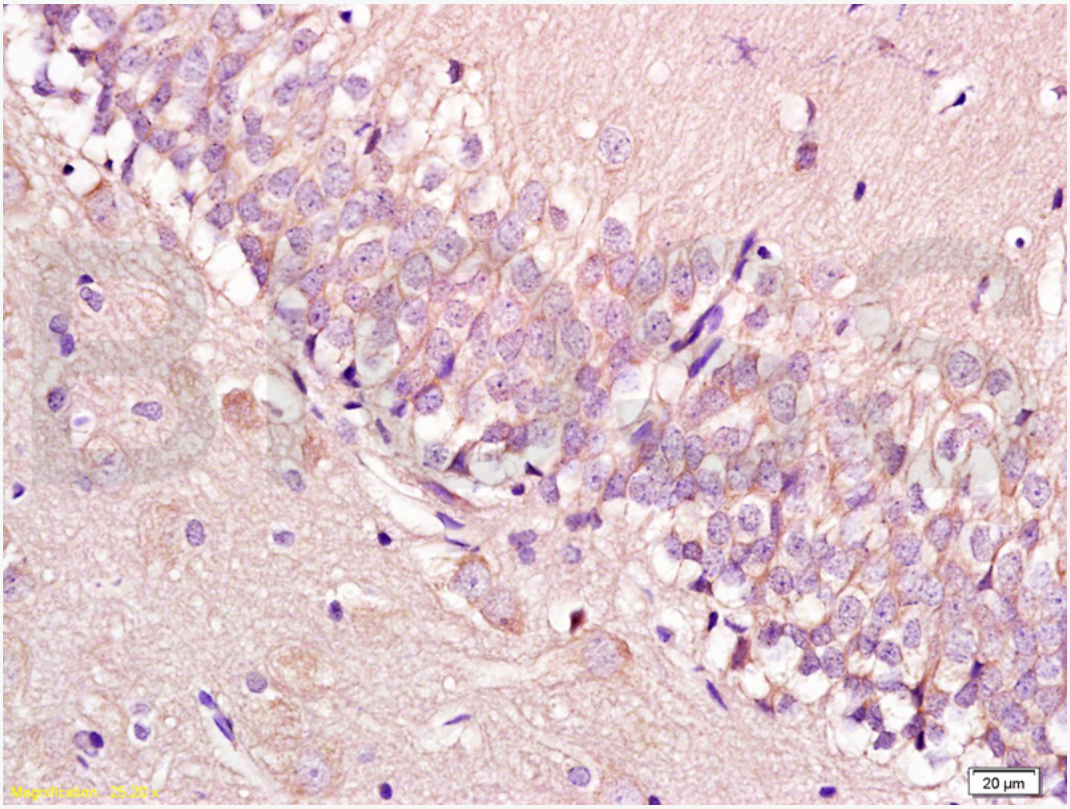
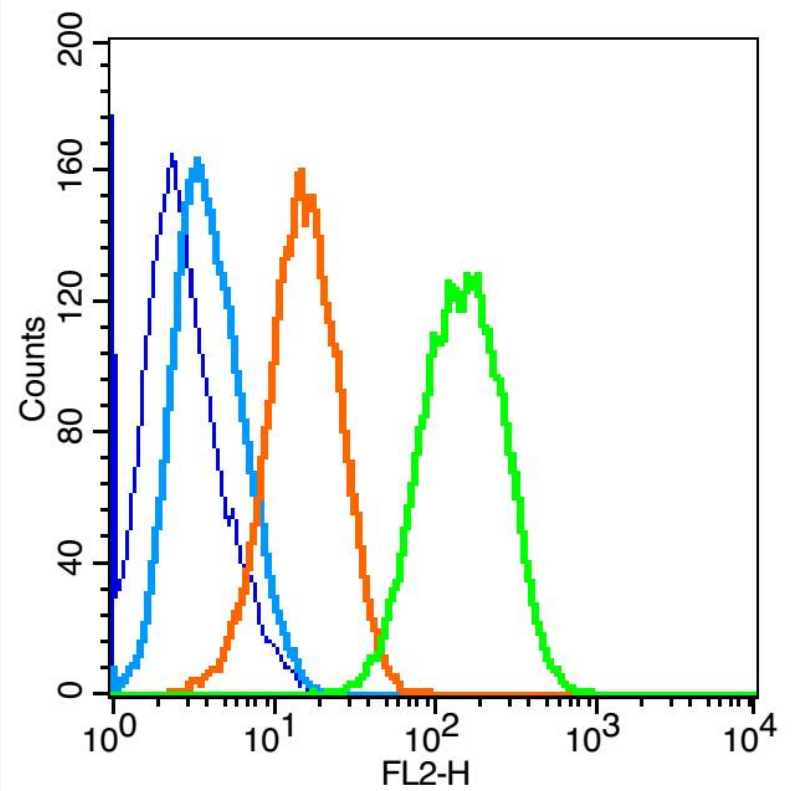


Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (Mouse,Rat(predicted:Human,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep,GuineaPig)1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-ADRA1/ADRA1B/alpha 1 Adrenergic Receptor Polyclonal Antibody, Unconjugated (SL0600R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: U-87MG(blue).

Primary Antibody:Rabbit Anti-ADRA1A antibody(SL0600R), Dilution: 1μg in 100 μL 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions);

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.

Protocol

The cells were fixed with 2% paraformaldehyde (10 min) , then permeabilized with 90% ice-cold methanol for 30 min on ice. Primary antibody (SL0600R,1μg /1x10^6 cells) were incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 1 0% goat

serum (15 min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min on ice. Acquisition of 20,000 events was performed.