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[Primary Antibody]

Rabbit Anti-ADRB2 antibody

Catalog Number: SL23001R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	ADRB2
Immunogen:	KLH conjugated synthetic peptide derived from human ADRB2: 1-100/413 <Extracellular>
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
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.
Reactivity:	Human,Mouse
Predicted MW.:	46kDa
Subcellular Location:	The cell membrane
Background:	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-

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	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. **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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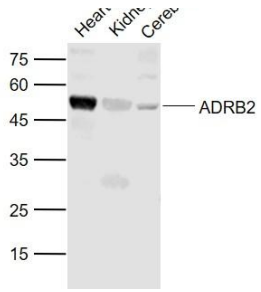
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[VALIDATION IMAGES]



Sample:
Lane 1: Heart (Mouse) Lysate at 40 ug
Lane 2: Kidney (Mouse) Lysate at 40 ug
Lane 3: Cerebrum (Mouse) Lysate at 40 ug
Primary: Anti-ADRB2 (SL23001R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 55 kD
Observed band size: 52 kD

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