**Product datasheet**

**Anti-beta 2 Adrenergic Receptor antibody - C-terminal ab137494**

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**Overview**

**Product name**  Anti-beta 2 Adrenergic Receptor antibody - C-terminal

**Description**  Rabbit polyclonal to beta 2 Adrenergic Receptor - C-terminal

**Host species**  Rabbit

**Tested applications**  Suitable for: ICC/IF, WB, IHC-P

**Species reactivity**  Reacts with: Rat, Human  Predicted to work with: Monkey

**Immunogen**  Synthetic peptide corresponding to Human beta 2 Adrenergic Receptor (C terminal). Carrier-protein conjugated synthetic peptide encompassing a sequence within aa 340-413. The exact sequence is proprietary.

Database link: P07550

**Positive control**  WB: A431, HepG2, PC-12 whole cell extracts. IHC-P: Human colon carcinoma, HeLa xenograft tissue. ICC/IF: This antibody gave a positive result when used in the following formaldehyde fixed cell lines: PC3.

**Properties**

**Form**  Liquid

**Storage instructions**  Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

**Storage buffer**  pH: 7.00

Preservative: 0.01% Thimerosal (merthiolate)

Constituents: 78% PBS, 20% Glycerol, 1% BSA

**Purity**  Immunogen affinity purified

**Clonality**  Polyclonal

**Isotype**  IgG

**Applications**

Our Abpromise guarantee covers the use of ab137494 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
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.

Sequence similarities

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

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. Phosphorylated upon DNA damage, probably by ATM or ATR. Phosphorylation of Tyr-141 is induced by insulin and leads to supersensitization of the receptor. Ubiquitinated. 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.

Cellular localization

Cell membrane.

Images

**All lanes**: Anti-beta 2 Adrenergic Receptor antibody - C-terminal (ab137494) at 1/500 dilution

Lane 1: A431 whole cell extracts
Lane 2: HepG2 whole cell extracts

Lysates/proteins at 30 µg per lane.

**Secondary**

All lanes: HRP-conjugated anti-rabbit IgG antibody at 1/10000 dilution

Developed using the ECL technique.
**Predicted band size:** 46 kDa

10% gel. Running: 80V, 15min; 140V, 40 min. Transfer: Semi-dry, 18 V, 60 min (Nitrocellulose membrane). Blocking: 5% non-fat milk in TBST, RT, 60 min. Primary antibody incubation: 4°C overnight. Washing: 5 ml TBST, 4 x 5 min. Exposure using Western blot HRP substrate.

**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta 2 Adrenergic Receptor antibody - C-terminal (ab137494)**

Immunohistochemical analysis of paraffin-embedded human colon carcinoma labeling beta 2 Adrenergic Receptor with ab137494 at 1/250 dilution. Cytosol staining is observed. Antigen Retrieval: EDTA based buffer, pH 8.0, 15 min.

**Western blot - Anti-beta 2 Adrenergic Receptor antibody - C-terminal (ab137494)**

Anti-beta 2 Adrenergic Receptor antibody - C-terminal (ab137494) at 1/500 dilution + PC12 whole cell lysate at 30 µg

**Secondary**

HRP-conjugated anti-rabbit IgG antibody

**Predicted band size:** 46 kDa

10% SDS PAGE
ab137494 stained PC3 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab137494 at 1µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (ab96899) IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

Immunohistochemical analysis of paraffin-embedded Hela xenograft, labelling beta 2 Adrenergic Receptor with ab137494 at 1/500 dilution.

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